Oregon
Theodore R. Kulongoski, Governor

Division of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 378-3805
FAX (503) 378-4844
www.oregonstatelands.us.

January 14, 2003

State Land Board

Theodore R. Kulongoski
Governor

Bill Bradbury
Secretary of State

Randall Edwards
State Treasurer

Ms. Colleen Johnson,
Mayor, City of La Grande
PO Box 670
La Grande, OR 97850

Re: Approval of the City of La Grande Local Wetlands Inventory and Assessment

Dear Mayor Johnson:

I am pleased to notify you that the Division of State Lands has approved your Local Wetlands Inventory (LWI) and assessment. We appreciate your planning staff working closely with our staff and the wetland consultant to ensure that the inventory meets state LWI requirements (OAR 141-86-180 to 240) and the city's needs. The final inventory requirement is for the city to notify property owners with wetlands mapped on their property within 120 days of this approval. Please provide us with a copy of the landowner notification, indicating the date of notification, when notification has been completed.

Approval by the Division means that the LWI becomes part of the Statewide Wetlands Inventory. 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 LWI and functional assessment also form the foundation for your wetland planning under Statewide Planning Goal 5, and the LWI must be adopted by the city per the Goal 5 requirements. Please note that when significant wetlands are designated by the city, "non-significant" wetlands may be coded to distinguish them from "significant wetlands" but must not be removed from the approved LWI maps. These wetlands are still subject to state and federal permit requirements.

While considerable effort has been made to accurately identify most wetlands within the study area, the Division's approval does not guarantee that all regulated wetlands have been mapped. Also, exact wetland boundaries have not been surveyed, and there are inherent limitations in mapping accuracy. 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.

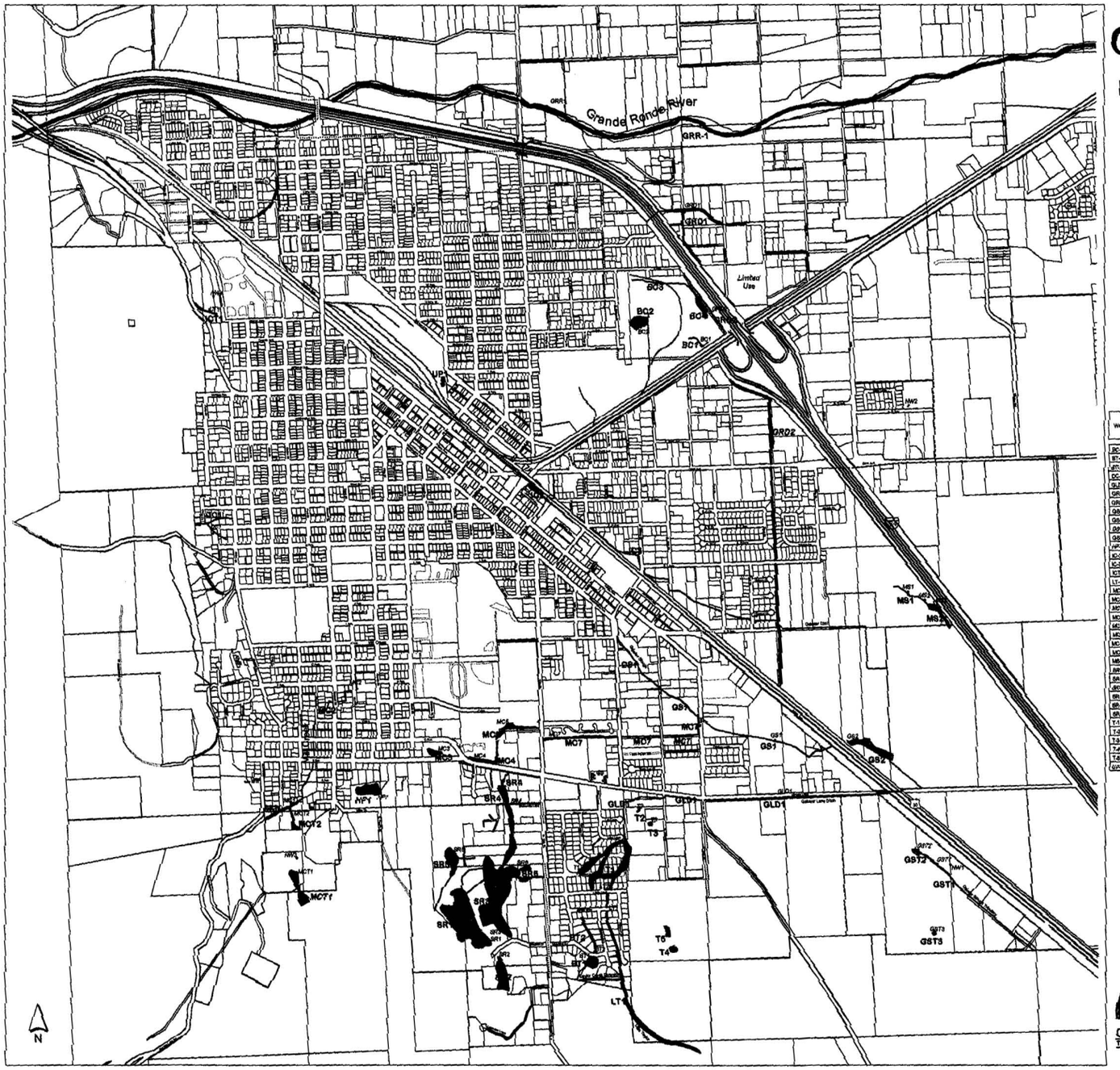
To keep your LWI updated, it will be important to annotate your map (and associated database, if any) as new wetland delineations are completed and approved by the Division. Future wetland delineation approvals will be provided to the planning department. We recommend you annotate the file number of such newly-approved delineations on the affected tax lots on the master map or database.

We are pleased that the City of La Grande 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. Please feel free to contact Dana Field at extension 238 with any questions you may have about the LWI or its use.

Sincerely,

John E. Lilly
Assistant Director

c: Mike Hyde, Community Development Director, City of La Grande
Laren Woolley, DLCD
Mirth Walker, Fishman Environmental Services
Yvonne Vallette, EPA (enclosure) (1995 grant)
Jim Goudzwaard & Mary Headley, Corps of Engineers (enclosure)
John Marshall, FWS, Portland Field Office (enclosure)
Patty Snow, ODFW (enclosure)
Tom Melville, DEQ
Elaine Blok, FWS Regional Office
Kevin Herkamp, DSL
Ann Hanus, Director, DSL



City of La Grande

Local Wetlands Inventory Map

Legend

- Sample Points
- Wetlands
- Railroad
- Highways
- Parcels
- City Blocks

UGB & City Limits

- UGB
- City Limits
- Both

Wetland Code	Location	Acreage	State Jurisdiction	Locally Significant Wetland
BC-1,2,3,4	Boise Cascade Yard	1.70	No	No
BT-1	Big Taylor Creek, south of Highland Drive	0.67	Yes	Yes
BT-2	Big Taylor Creek, north of Highland Drive	2.44	Yes	Yes
DC-1	Deal Canyon	N/A	No	Stream; Alt.
GLD-1	Gekeler Lane Ditch	0.64	Yes	Yes
GRD-1,2	Grande Ronde Ditch	1.20	No	No
GRR-1	Grande Ronde River	N/A	Yes	River, NA
GS-1	Gekeler Slough	0.80	Yes	Yes
GS-2	Gekeler Slough	3.50	Yes	Yes
GST-1	Gekeler Slough Tributary	0.49	Yes	No
GST-2,3	Gekeler Slough Tributary	0.13	Yes	No
HP-1	Hoffman Park Pond	1.8	Yes	Yes
IC-2	Irrigation canal, downtown section	0.10	No	No
IC-3	Irrigation canal, north of RR tracks	0.20	No	No
KT-1	Jatbula seep below Gangloff Park	0.80	Yes	No
LT-1	Little Taylor Creek, west of Hillcrest	0.56	Yes	Yes
MC-1	Mill Creek, Upper reach	0.30	Yes	Stream, NA
MC-2	Mill Creek, Avenue A to College	0.50	Yes	Stream, NA
MC-3	Birds Park	0.50	Yes	Yes
MC-4	North of Gekeler at Division	0.05	Yes	Yes
MC-5	North of Gekeler, west of 12th	0.05	Yes	Yes
MC-7	North of Gekeler, 12th to 20th	0.80	Yes	Yes
MCT-1	Pond in southwest corner of city	0.50	Yes	Yes
MCT-2	Southeast of Oak Street	0.67	Yes	Yes
MS-1,2	McAlister Slough headwaters, west of I-84	0.95	Yes	No
SR-1	Spence Reservoir, end of Gilcrest Drive	9.00	Yes	Yes
SR-2	Above Spence Reservoir	13.3*	Yes	Yes
SR-3	Below and northeast of Spence Reservoir	N/A	Yes	Yes
SR-4	South of Gekeler near MC-4	N/A	Yes	Yes
SR-5	"Goss Pond" north of Spence Reservoir	1.80	Yes	Yes
SR-6	West of 12th Street, contiguous with SR-3	N/A	Yes	Yes
T-1	Taylor Creek, Sunnyhills Park	0.67	Yes	Yes
T-2	Spring south of Gekeler and west of 16th	0.02	Yes	No
T-3	Spring south of Gekeler and east of 16th	0.02	Yes	No
T-4	Upper "Grandview Pond"	0.30	No	No
T-5	Lower "Grandview Pond"	0.067	No	No
UP-1	Union Pacific RR Yard	7.00*	No	No

DISCLAIMER

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. In some cases the error in wetland boundary mapping may exceed 25 feet.

Projected in
Lambert Conformal Conic
State Plane - 1983
Oregon, North

0 500 1000 1500 2000 Feet

Product of City of La Grande GIS

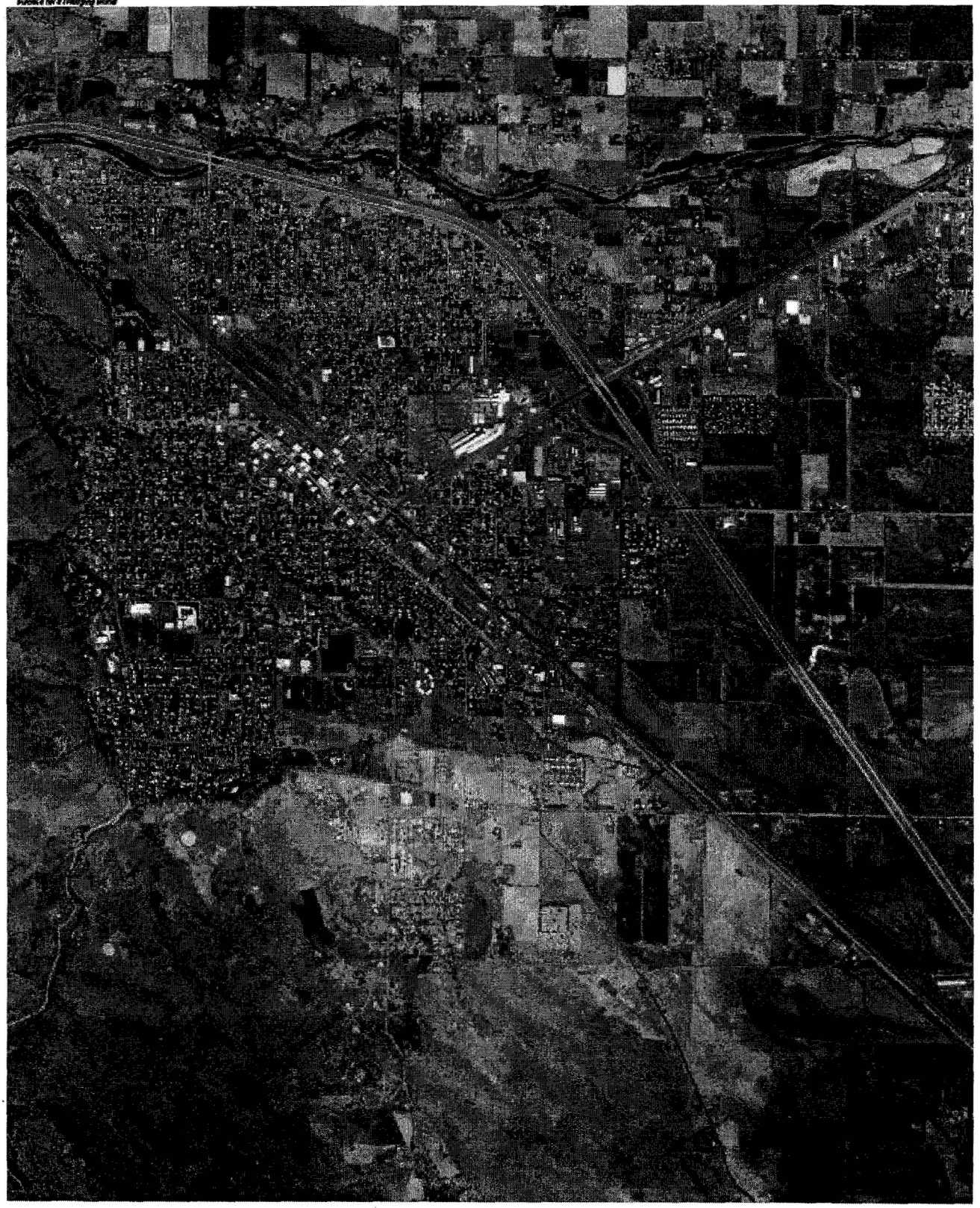
CITY of LA GRANDE
THE HUB OF NORTHEASTERN OREGON

Date: 1/6/2005
File: o:\arcproj\wetlands\boundaries

Microsoft TerraServer **Display Image** **USGS Aerial Photograph**

La Grande, Oregon, United States 26 Jul 1994

USGS



Margot Irvin
GIS Specialist
GPS/GIS MAPPING SERVICE

Visual Map Solutions LLC

PO Box 874
Elgin, OR 97827

Phone: 541-437-4106
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Map, Narrative, and summary sheets
sent to Bend DSL 1/14/03

ACKNOWLEDGMENTS

Fishman Environmental Services would like to express our appreciation and thanks to the community members of the La Grande area for their support and interest in this project, especially those people who shared their observations and knowledge with us. This project could not have been accomplished without the support and leadership of the City of La Grande Planning Department; special thanks go to Amy Drought and Dan Moore for their valuable assistance in this project. Special accolades go to Ken Bierly, Janet Morlan, and Dana Field of the Division of State Lands for their management of the inventory contract and for guidance of the project. Thanks also to Perry Lumley of the Division of State Lands for participating in the October 1995 public meeting.

Note: Project support for the completion of this Local Wetland Inventory in 2002 was provided by Dana Field of the Division of State Lands and the following City of La Grande staff:

Michael A. Hyde, AICP, Community Development Director/Planner
Michael J. Boquist, Associate Planner
Lisa J. Gibson, Administrative Secretary
Margot Irvin, GIS Consultant
Barbara Trick, Clerk-Typist

EXECUTIVE SUMMARY

An inventory of wetland areas within the City of La Grande's Urban Growth Boundary (UGB) was conducted during July and October of 1995. The La Grande UGB encompasses approximately 5.22 square miles (3,341 acres) in the Grande Ronde Valley in Union County, Oregon. The majority of the City's UGB lies south of the Grande Ronde River.

Each wetland site was described, evaluated, mapped on an aerial photograph (flown October 13, 1994; scale 1 inch = 400 feet), and photographed. Wetland areas were digitized by a cartographer on staff with the City of La Grande.

Wetlands were identified based on the methodology contained in the 1987 *Corps of Engineers Wetlands Delineation Manual* and were inventoried and mapped according to Local Wetlands Inventory standards and procedures. 47 wetlands were inventoried (27 jurisdictional wetlands, 17 non-jurisdictional wetlands, and 3 waters of the State). The majority of wetlands within the city were channelized streams; wetland springs and seeps were especially common in the southern hills within the UGB. Wetland acreage within the study area totals approximately 39 acres, including 7.61 acres palustrine open water, 25.15 acres palustrine emergent, 3.65 acres palustrine scrub-shrub, and 3.02 acres palustrine forest wetlands. Wetland summary sheets, wetland determination data sheets, and wetland function and value assessment sheets are included in the Appendices of this report.

Note: An update of the inventory was conducted in 2002 by the City of La Grande. This updated inventory resulted in the elimination of wetlands that were filled between the time of the 1995 inventory and the 2002 update. The resultant wetland acreage as of 2002 is approximately 38.32 acres, including 7.3 acres of palustrine open water, 25.16 acres of palustrine emergent, 3.65 acres of palustrine scrub-shrub, and 2.20 acres of palustrine forest wetlands. The wetland summary sheets, wetland determination data sheets and wetland function and value assessment sheets were amended as a result of wetland changes that have occurred over this time period.

42 unique wetland codes
12 non-jurisdictional
21 non-significant including streams

1 INTRODUCTION

The Oregon Division of State Lands (DSL) contracted Fishman Environmental Services (FES) to conduct a Local Wetlands Inventory with as much on-site information as possible within the City of La Grande's Urban Growth Boundary (UGB) to identify, quantify, and evaluate wetland resources in the area. Wetlands were inventoried according to Division of State Lands (DSL) Local Wetlands Inventory (LWI) "On-site Option" standards and procedures. Each wetland site was mapped, described, and evaluated. *Note: This inventory was updated in 2002 by the City of La Grande.* This inventory is the initial step of the Goal 5 process under the guidelines of Oregon's Department of Land Conservation and Development (DLCD): identify wetland location, number of wetlands, and quality of wetlands.

Funding for this project was provided by a grant from the Environmental Protection Agency (EPA Clean Water Act Wetlands Program Enhancement Grant) and the City of La Grande provided in-kind services and support for this project.

The purpose of conducting a Local Wetland Inventory for the City of La Grande is to aid the City in making well-informed planning decisions, and to provide sufficient information on the wetland resources within the Urban Growth Boundary. The Inventory information will enable the City to complete the planning decisions required by state law (Goal 5 Process). The inventory data is sufficiently site specific to enable the City to determine the development suitability of individual parcels. Wetland functions and values have also been assessed using the *Oregon Freshwater Wetland Assessment Methodology* (Roth et al., 1993).

Detailed wetland inventories also provide better information for local governments and land owners than National Wetlands Inventory maps. Approved local wetland inventories are incorporated into the statewide wetland inventory. Local Wetland Inventories provide information for planning purposes and on the location of potentially regulated wetlands; they are not of sufficient detail for regulatory certainty under the State Removal-Fill Law (on-site wetland delineations or boundary determinations will need to be conducted prior to alteration of wetlands).

The City digitized wetland areas from an aerial base map and produced the Local Wetlands Inventory map of wetland sites within the City of La Grande's Urban Growth Boundary. Determinations are subject to review and approval by the DSL before incorporation into the Statewide Wetlands Inventory. Although all efforts have been made to identify all wetland resources with the City's UGB, there is no guarantee that all wetlands have been mapped.

.1 Landowner Notification and Property Access Permission

Prior to any field work an extensive process was undertaken to notify landowners of the intent and goals of the wetlands inventory project. A notification letter was sent by the City to property owners of potential wetland areas identified during the initial mapping process and two public informational meetings were held where the public was invited to ask questions and provide comments. The first public information meeting was held July 20, 1995. Field work was conducted July 20 through July 22, 1995, by Mirth Walker and Christie Galen of FES and

Randy Krichbaum of Eagle Cap Consulting. Amy Drought and Dan Moore assisted with several site visits on July 21, 1995. Numerous individuals were met in the field to coordinate on-site access.

The second Public Meeting was held October 26, 1995. Draft wetland inventory results were presented and questions were answered. Field work was conducted on October 26 and 27, 1995 by Mirth Walker of FES; Dana Field of DSL field-checked several selected sites on October 27, 1995. *Several sites were field checked in 2002 during the survey update.*

.2 Study Area

The boundary of the present study was the Urban Growth Boundary of the City of La Grande (Figure 1), approximately 5.22 square miles (3,341 acres). Approximately 24 percent of the study area lies outside the city limits of La Grande, within the UGB. The City of La Grande lies in central Union County along the western fringe of the 289-square mile Grande Ronde Valley, in northeastern Oregon (FEMA, 1980a). The valley is a nearly round basin, named by a French fur trapper, and is bordered by the Blue Mountains on the west. The Grande Ronde River flows through the northern portion of the city and eventually drains to the Snake River. The City of La Grande is located at river mile 158.0.

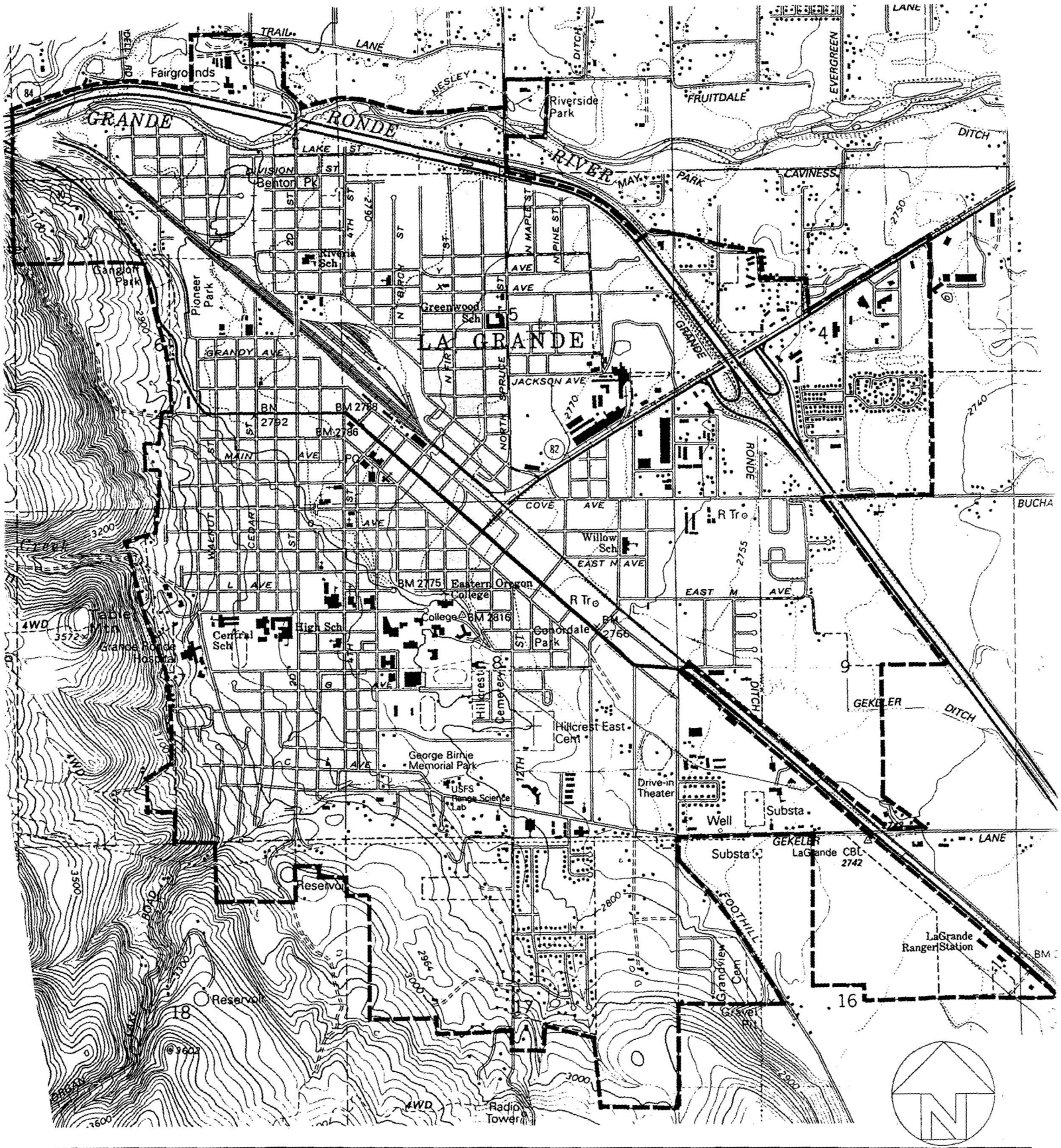
.3 Climate

The Grande Ronde Valley has a continental climate modified by coastal marine air. Winters are cool and moist, and summers are warm and dry. The average July temperature is 70.4 ☜F and the average January temperature is 30.9 ☜F. The average annual rainfall is 19.84 inches and the average annual snowfall is 36.5 inches (La Grande Union County Chamber of Commerce, no date). The growing season for the City of La Grande is from approximately April 24 through October 2 (FEMA, 1980a). Similarly, the soil survey for Union County lists a growing season from May 9 through October 2 for Union, a town located 15 miles southeast of La Grande (Table 2, USDA SCS, 1985). The Union County area produces a variety of crops including wheat, barley, alfalfa and grass hay, grass seed, green peas, potatoes, cherries, *sugar beets, mint* and pasture crops.

.4 History

Before settlement occurred in the mid 1800s, much of the valley was marsh and swamp, and beaver were abundant (USDA SCS, 1985). Native Americans called the valley Cop Copi, or "place where the cottonwoods grow." Camas and salmon were staples of the region (Telfax Inc., 1995). Much of the valley has been drained, and the hazard of flooding has been reduced by construction of the State Ditch located east of La Grande, and by extensive diking (USDA SCS, 1985). The Oregon Trail is a highly visible attraction in La Grande. The City of La Grande was incorporated in 1885. Most of the development within the city has been primarily residential with a smaller percentage of business development. Residential zoning within the La Grande UGB accounts for 72 percent of the land base. Areas in the south and east of the UGB are still actively being farmed for grass crop and grass seed production. The population of La Grande in 1990 was 11,763. *The 2000 Census counted 12,327 residents within the City.*

INSERT FIGURE 1. STUDY AREA (USGS WITH UGB BOUNDARY)



LEGEND

Source: La Grande, Oregon USGS 7.5' topographic quadrangle, 1994.

QUADRANGLE LOCATION

STUDY AREA BOUNDARY

DRAWN: W. Bush

APPROVED: M. Walker

DATE: December 1995

SCALE: 1 in. = 2,000 ft.

REVISED: _____

City of La Grande
Local Wetlands Inventory

Study Area (Urban Growth Boundary)

Consultants in ecology and natural resource management

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

Figure # 1

.5 Source Material

In addition to the aerial photographs, USGS map, National Wetlands Inventory map, and Soils map for the area, many maps developed by the City were reviewed to identify potential wetland sites. These and other materials used in this study are listed in the Reference section.

.6 National Wetlands Inventory

The National Wetlands Inventory map for the La Grande SE, Oregon, quadrangle is shown in Figure 2. The Grande Ronde River, Mill Creek, Grand Ronde Ditch, and ponds in the southern area of the City are the major wetland features shown on the map.

.7 Soils

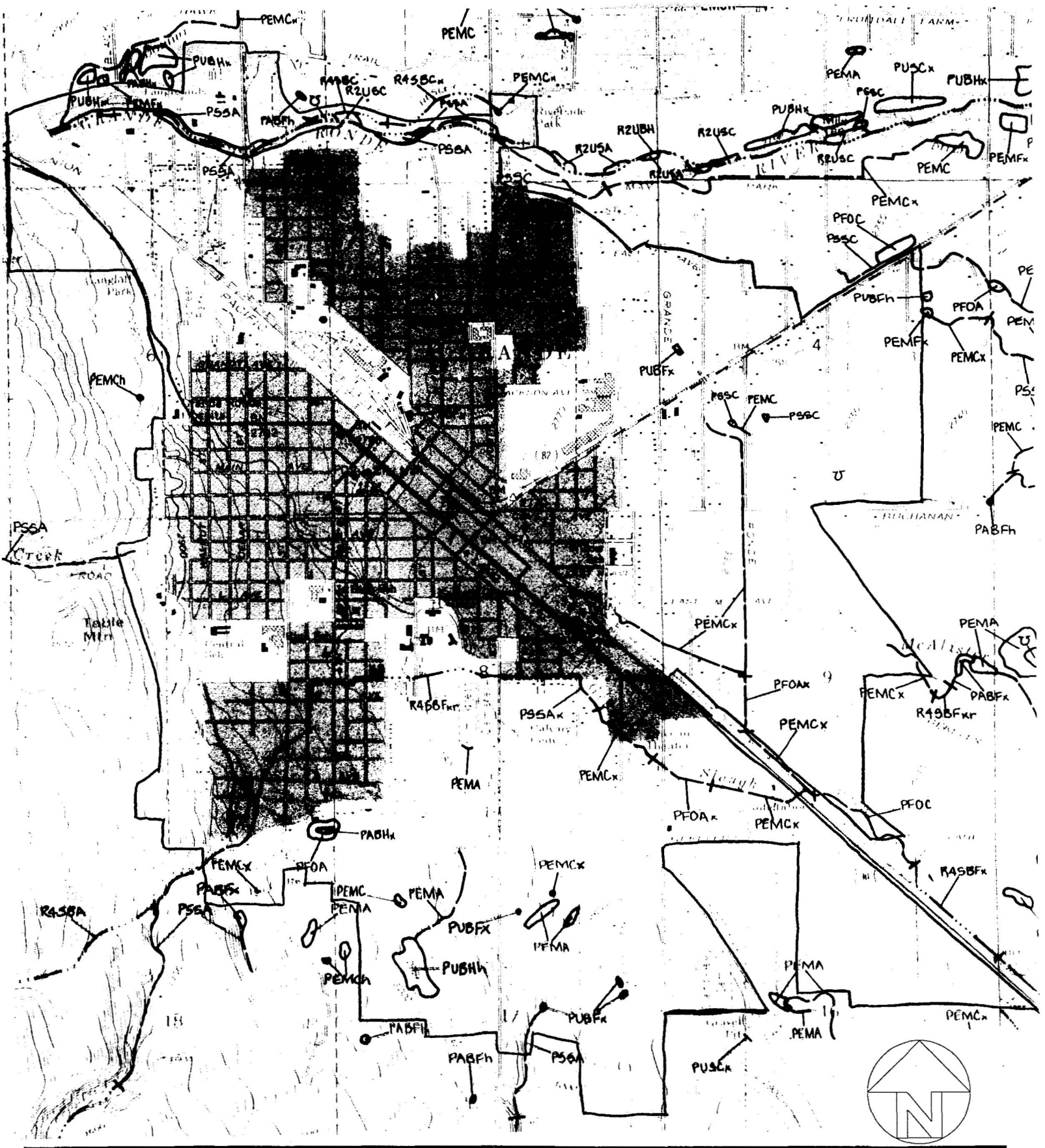
The soils of the Grande Ronde Valley formed in recent stream alluvium, aeolian (wind-blown) deposits of sand and silt, lacustrine (lake bed) deposits high in volcanic ash or diatomaceous earth, and terrace deposits (FEMA, 1980a). Bottom land along The Grande Ronde River is comprised of lake bed soils, mainly silt loams. Land adjacent to bottom lands is on terraces or alluvial fans and is made up of silty to sandy loam soils. Stony soils and silt loams are found in the upland areas typically used for range or timber land.

Soils mapped in the La Grande UGB are shown in Figure 3 and Table 1. The most common soils within the study area are La Grande silt loam (map unit 36), Urban land - Ramo complex (map unit 64), Urban land - Veazie complex (map unit 65), Veazie - Voats complex (map unit 66), Veazie - Voats complex, protected (map unit 67), with Ramo silty clay loam (map unit 50C) in the Mill Creek windows area, and Ramo very stony silty clay loam (map unit 51D) and Ramo Variant silt loam (map unit 54C) in the south hills area.

Four map units in the La Grande UGB are listed as having hydric soil inclusions: Catherine silt loam (map unit 7), Catherine silty clay loam (map unit 8), Lookingglass very stony silt loam (map unit 40C), and Ukiah silty clay loam (map unit 60D). For all intents and purposes, these soils can be considered hydric soils.

The taxonomic class column in the following table refers to what family of soils the map units belong to. All of the soils in the study area are Mollisols, or prairie soils having developed under rich grasslands. Mollisols typically have thick dark (black) surface horizons (known as mollic epipedons), and are rich in organic matter.

INSERT FIGURE 2. NATIONAL WETLANDS INVENTORY MAP



LEGEND

Source: La Grande, Oregon USDI National Wetlands Inventory map, 1991
(CIR Aerial Photography 8/81, 1:58,000).

Study Area Boundary

DRAWN: W. Bush
APPROVED: M. Walker
DATE: December 1995
SCALE: 1 in. = 2,000 ft.
REVISED:

City of La Grande
Local Wetlands Inventory

NWI Map

Consultants in ecology and natural resource management

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

Figure # 2

Project # 95052

INSERT FIGURE 3. SOILS MAP

LEGEND

Source: Soil Survey Union County Area, Oregon, 1985, sheet numbers 29 and 36.

STUDY AREA BOUNDARY

T.3S., I T.2S.

LA GRANDE (County Seat)

GRANDE RONDE RIVER

Island City

Mulholland

McAlister Slough

Gekeler Slough

UNION PACIFIC RAILROAD

Drawn:	W. Bush
Approved	M. Walker
Date:	December 1995
Scale:	1 inch = 166 ft

Consultants in ecology and natural resource management

Fishman Environmental Services
434 NW Sixth Avenue * Suite 304
Portland, Oregon 97209-3600
(503) 224-0331

City of La Grande Local Wetlands Inventory

Soils Map

Figure # 3

Project # 95052

TABLE 1. MAPPED SOILS IN THE LA GRANDE URBAN GROWTH BOUNDARY

Map Unit #	Map Unit Name	Taxonomic Class
7*	*Catherine silt loam	Cumulic Haplaquolls
8*	*Catherine silty clay loam (hydric inclusions)	Cumulic Haplaquolls
12D	Cowsly very stony silt loam, 2-20% slopes	Xeric Argialbolls
35E	Klicker - Anatone complex, 5-40% slopes	Ultic Argixerolls -Lithic Haploxerolls
36	La Grande silt loam	Pachic Haploxerolls
37	La Grande silty clay loam	Pachic Haploxerolls
40C*	*Lookingglass very stony silt loam, 2-20% slopes	Xeric Argialbolls
46B	Palouse silt loam, 0-5% slopes	Pachic Ultic Haploxerolls
50C	Ramo silty clay loam, 2-15% slopes	Typic Argixerolls
51D	Ramo very stony silty clay loam, 2-20% slopes	Typic Argixerolls
54C	Ramo Variant silt loam, 2-12% slopes	Argic Durixerolls
56E,F	Royst very stony silt loam, 7-35%, 35-70% slopes	Pachic Argixerolls
60D*	*Ukiah silty clay loam, 2-20% slopes	Vertic Argixerolls
61E	Ukiah - Starkey complex, 5-40% slopes	Vertic Argixerolls -Typic Argixerolls
63	Urban land - La Grande complex	Pachic Haploxerolls
64	Urban land - Ramo complex, 2-15% slopes	Typic Argixerolls
65	Urban land - Veazie complex	Cumulic Haploxerolls
66	Veazie - Voats complex	Cumulic Haploxerolls -Fluventic Haploxerolls
67	Veazie - Voats complex, protected	Cumulic Haploxerolls -Fluventic Haploxerolls
71*	*Wingville silt loam	Cumulic Haplaquolls

*Soils with hydric inclusions (poorly drained inclusions, wet spots, seep areas, and marsh areas).

.8 Drainage basin and sub basins

The drainage area for the Grande Ronde River is 678 square miles (FEMA, 1980a). The watershed for La Grande has been calculated to be 19.7 square miles, or 12,605 acres (City of La Grande, 1995). Flooding within the City of La Grande has historically originated either from the Grande Ronde River or from the number of small creeks entering the city from the west and southwest (ibid.). Mill Creek, Deal Creek, and Taylor Creeks combine in a broad, flat plain drained by Gekeler Slough. Gekeler Slough flows through an extremely flat, low area in the city. Major floods on Gekeler Slough and its tributaries usually result from heavy winter rains compounded by rapid snow melt or frozen-ground conditions (ibid.). Drainage areas for the creeks in La Grande, as calculated by the Federal Emergency Management Agency (FEMA), are as follows:

Creek	Drainage Area (square miles)
Taylor Creek	2.6
Little Taylor Creek	0.4
East-West Diversion Channel	2.6
Mill Creek	4.1
Deal Creek	2.1
Gekeler Slough	12.9

Gekeler Slough drains to Catherine Creek, which is a tributary of the Grande Ronde River.

2 METHODS

2.1 Wetland Identification and Definition

Wetlands are areas that are inundated (flooded or ponded) or saturated by surface or ground water where soils typically develop characteristics indicative of wetness and where vegetation is adapted to living in saturated soil conditions. Wetlands provide critical habitat for wildlife, water quality protection, flood water storage and conveyance, and areas for groundwater discharge and recharge.

Wetlands were identified based on the methodology contained in the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987). The regulatory definition of wetlands requires that, under normal circumstances, positive indicators of wetland hydrology, hydric (wet) soil, and hydrophytic (water tolerant) vegetation be present. Indicators of all three criteria must be present unless a site has been disturbed. Further research is usually required when a site's vegetation has been removed or altered (such as in farmed wetlands), when soils have been filled or removed, or when the natural drainage has been altered or manipulated so as to affect the hydrology of an area. During abnormally dry or wet seasons of the year, certain assumptions about wetland hydrology may be made; these assumptions may be characterized as best professional judgment. Wetlands generally include swamps, marshes, bogs, and similar areas, but also include seasonal wet meadows, farmed wetlands and other areas that may not appear "wet" all the time.

The three wetland criteria are: hydrophytic (water tolerant) vegetation, hydric (wet) soils, and wetland hydrology.

2.2 Hydrophytic Vegetation

Dominant plants are identified to their species level and their wetland indicator status is recorded from the *National List of Plant Species that Occur in Wetlands, Northwest Region* (Reed, P.B., Jr., 1988b and 1993 *Supplement*). The wetland indicator status of plants includes the following:

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 or **NOL** - Upland or Not Listed (almost always occur in non-wetlands)
NI - No Indicator (insufficient information available or plant is widely tolerant)

The three facultative indicator categories (FACW, FAC, FACU) may have, in addition, a positive (+) or negative (-) sign to indicate that the plant is more (+) frequently or less (-) frequently found in wetlands within the region. Dominant vegetative cover is visually estimated within a five foot radius for herbs and a 30 foot radius for shrubs and trees in sample plots.

The vegetation analysis includes identifying dominant plants (plants normally comprising at least 20 percent cover) from all strata (tree, shrub, herb, woody vine) and reviewing their indicator status. The hydrophytic vegetation criterion is met when more than 50 percent of the dominant plant species are composed of OBL, FACW, or FAC plants. FAC- plants are counted as non-wetland plants. NI plants are not used in the calculation of the percentage of dominant plant species.

2.3 Hydric Soils

Soil analysis involves examining near-surface soils using a trenching shovel, hand auger, or soil probe (a probe was used in this study). Near surface soils are examined for color and texture characteristics in the field in sample plots approximately 16 inches in depth. Soil colors and mottling are typically documented in the field with the use of *Munsell Soil Color Charts* (Munsell Color, 1990 revised edition), which utilizes an international system of naming the hue, value, and chroma of a soil. Soil textures such as sand, silt, clay, muck, and peat are described in the field in accordance with terms utilized by the USDA Soil Conservation Service (the organization is now known as the Natural Resources Conservation Service, or NRCS). Where possible, soil types are matched to the mapped soil units of the site in the local Soil Survey.

Hydric soils normally exhibit certain textures (e.g., clays and silts having poor drainage) and color indicators in the horizon immediately beneath the surface (top soil) layer: a chroma of 1 with or without mottles or a chroma of 2 with mottles. Mottles are simply blotches of a different color from that of the main (matrix) soil color. Mottles often result from the oxidation or reduction of iron and other minerals in the soil, and may indicate that the soils are alternatively wet and dry. Sandy soils may have a matrix chroma of 3 or less with mottles in order to be considered hydric. The strongest hydric indicators in sandy soils are high organic matter in the surface horizon, dark vertical streaking of subsurface horizons by organic matter, and the accumulation of organic matter in slightly cemented horizons normally 12 to 30 inches below the soil surface (organic pans).

2.4 Wetland Hydrology

Hydrology analysis involves documenting ponding or inundation, depth to saturation or to a water table in near-surface plots, the presence of oxidized root channels around living roots (an indicator of saturated soils), and/or other field indicators of wetland hydrology such as drainage patterns typical of wetland areas. Wetland hydrology, by definition, occurs during the growing season. Aerial photograph research, soils and plant information, and best professional judgment are often used to determine if a site displays indicators of wetland hydrology.

The wetland hydrology criterion requires soils to be inundated or saturated to the surface for at least 5 to 12.5 percent of the growing season in most years. Water is thus present long enough to bring about anaerobic conditions in soils, which stresses plants unless they are adapted to living under conditions of low oxygen availability.

2.5 Wetland Classification

Wetlands were classified in this study as palustrine forest (PFO), palustrine scrub-shrub (PSS), palustrine emergent (PEM), and palustrine open water (POW). The palustrine system includes all non-tidal wetlands dominated by trees, shrubs, and persistent emergent vegetation. Special modifiers were used for describing disturbed wetlands: x = excavated and h = impounded /diked. This classification system utilizes a modified Cowardin, et al. (1979) method.

2.6 Wetland Summary Sheets

A summary sheet for each wetland site is included in the Appendices. Summary sheets include location information, observer(s), approximate wetland acreage, quarter section, field date, access information, a general description of each site, NWI (Cowardin) classification, mapped hydric soils, on-site soils, hydrologic source, dominant vegetation, wetland boundary information, obvious wetland functions, unique features, and a preliminary jurisdictional determination. This preliminary jurisdictional determination refers only to wetlands regulated by the Oregon Division of State Lands; the U.S. Army Corps of Engineers have not been consulted regarding their wetland jurisdictional determinations for the La Grande area.

Preliminary wetland acreages were estimated visually with an acetate overlay on the aerial photograph for future revision by the City. Calculated acreages do not include the wetland area outside the urban growth boundary. *Note: These acreages were modified after a 2002 inventory update by the City of La Grande. In addition, an updated list of tax lots and property owners with wetlands on or near their property was prepared by the City during the 2002 update of this inventory.*

2.7 Wetland Boundary Determination

All potential wetland sites in the La Grande UGB were field checked unless access was not permitted. Dominant vegetation, indicators of hydrology, mapped soils, and in most cases on-site soils were documented for each site. Where on-site access was not granted, observations of hydrology and vegetation were made from off-site vantage points. Boundary determinations for wetland areas in this study should be considered approximate. Wetland Determination Data sheets are included for each site in the Appendices.

2.8 Cartography

Sites were field-mapped on a clear acetate overlay of a color aerial photograph (scale 1 inch = 400 feet) which was flown on October 13, 1994 (Walker and Associates, 1994). Sites were named and numbered, and sample plots were located on the aerial base map. The base map also showed hydric soil units. Wetland boundaries and sample plots were digitized by the City of La Grande.

RESULTS

2.9 Wetland Code Names

The following code names were used in this study:

BC	Boise Cascade (isolated)
DC	Deal Creek
GLD	Gekeler Lane Ditch (Taylor and Spence Reservoir Drainages)
GRR	Grande Ronde River
GRD	Grande Ronde Ditch (Irrigation Company)
GS	Gekeler Slough (receives runoff from Deal, Mill, and Taylor Creeks)
GST	Gekeler Slough Tributary (GST-1 is isolated)
HP	"Hoffman Park Pond" in Mill Creek basin
IC	Irrigation Canal Company Ditch (a.k.a. Gekeler Ditch)
ICT	Irrigation Canal Company Ditch Tributary (west of Pioneer Park)
MC	Mill Creek
MCT	Mill Creek Tributary
MS	McAlister Slough
SR	Spence Reservoir (Davidson Lake) and seeps
LT	Little Taylor Creek
BT	Big Taylor Creek
T	Taylor Creek
UP	Union Pacific (isolated)

Below is a listing of inventoried wetlands with their jurisdictional and significance categories:

Wetland Code	Location	Acreage	State Jurisdiction	Locally Significant Wetland
BC- 1, 2, 3, 4	Boise Cascade Yard	1.70	No	No
BT-1	South of Hghland Drive	0.67	Yes	Yes
BT-2	North of Highland Drive	0.14	Yes	Yes
DC-1	Deal Canyon	N/A	No	Stream, NA
GLD-1	Gekeler Lane Ditch	0.54	Yes	Yes
GRD-1, -2	Grande Ronde Ditch	1.20	No	No
GRR-1	Grande Ronde River	N/A	Yes	River, NA
GS-1	Gekeler Slough	0.60	Yes	Yes
GS-2	Gekeler Slough	3.50	Yes	Yes
GST-1	Gekeler Slough Tributary	0.40	Yes	No

Wetland Code	Location	Acreage	State Jurisdiction	Locally Significant Wetland
GST-2 & 3	Gekeler Slough Tributary	0.13	Yes	No
HP-1	Hoffman Park Pond	1.30	Yes	Yes
IC-2	Irrigation canal, downtown section	0.10	No	No
IC-3	Irrigation canal, north of RR tracks	0.20	No	No
ICT-1	Hillside seep below Gangloff Park	0.80	Yes	No
LT-1	Little Taylor creek, west of Hillcrest	0.98	Yes	Yes
MC-1	Mill Creek, upper reach	0.30	Yes	Stream, NA
MC-2	Mill Creek, Avenue A to College	0.50	Yes	Stream, NA
MC-3	Birnie Park	0.50	Yes	Yes
MC-4	North of Gekeler at Matoon	0.05	Yes	Yes
MC-5	North of Gekeler, west of 12th	0.25	Yes	Yes
MC-7	North of Gekeler, 12th to 20th	0.60	Yes	Yes
MCT-1	Pond in southwest corner of city	0.50	Yes	Yes
MCT-2	Southeast of Oak street	0.67	Yes	Yes
MS-1 & 2	McAllister Slough headwaters, west of I-84	0.85	Yes	No
SR-1	Spence Reservoir, end of Gilcrest Drive	9.00	Yes	Yes
SR-2	Above Spence reservoir	13.2*	Yes	Yes
SR-3	Below and northeast of Spence reservoir	N/A	Yes	Yes
SR-4	South of Gekeler near MC-4	N/A	Yes	Yes
SR-5	"Goss Pond" north of Spence reservoir	1.3	Yes	Yes
SR-6	West of 12th street, contiguous with SR-3	N/A	Yes	Yes
T-1	Taylor creek, Sunnyhills Park	0.67	Yes	Yes
T-2	Spring south of Gekeler and west of 18th	0.02	Yes	No
T-3	Spring south of Gekeler and west of 18th	0.02	Yes	No
T-4	Upper "Grandview Pond"	0.20	No	No
T-5	Lower "Grandview Pond"	0.067	No	No
UP-1	Union Pacific RR Yard	0.02	No	No

*13,2 Acres includes SR-2, -3, -4 and -6

Waters of the State include the Grande Ronde River (GRR-1) and Upper Mill Creek (MC-1 and MC-2).

2.10 Wetland Determinations

Wetlands inventoried in this study include streams, ponds, and emergent, scrub-shrub, and forested wetlands. Small stock-watering ponds were briefly looked at in the field but were not included as potentially jurisdictional wetlands in this study.

47 wetlands were inventoried (27 jurisdictional wetlands, 17 non-jurisdictional wetlands, and 3 waters of the State). The majority of wetlands within the city were channelized streams; wetland springs and seeps were especially common in the southern hills within the UGB. Wetland acreage within the study area totals approximately 39 acres, including 7.61 acres palustrine open water, 25.15 acres palustrine emergent, 3.65 acres palustrine scrub-shrub, and 3.02 acres palustrine forest wetlands (see Table 2, Wetland Acreage). *Note: An update of the inventory was conducted in 2002 by the City of La Grande. This updated inventory resulted in the elimination of wetlands that were filled between the time of the 1995 inventory and the 2002 update. The resultant wetland acreage as of 2002 is approximately 38.32 acres,*

including 7.3 acres of palustrine open water, 25.16 acres of palustrine emergent, 3.65 acres of palustrine scrub-shrub, and 2.20 acres of palustrine forest wetlands. The wetland summary sheets, wetland determination data sheets and wetland function and value assessment sheets were amended as a result of wetland changes that have occurred over this time period. Wetland summary sheets, wetland determination data sheets, and wetland function and value assessment sheets are included in Appendix A of this report. Appendix B includes background information on the Oregon Freshwater Wetland Assessment Method. Appendix C includes 2002 comments on the inventory from the Oregon Division of State Lands. (DSL letter on Draft review)

2.11 Vegetation

Palustrine forest wetlands (PFO) were the least common type of wetland in La Grande and were typically dominated by golden willow (*Salix alba* var. *vitellina*, FACW). Palustrine scrub-shrub wetlands (PSS) in La Grande were the second least common type. Scrub-shrub wetlands were dominated by black hawthorn (*Crataegus douglasii*, FAC) and willow (*Salix* species, FAC or wetter). Palustrine emergent wetlands (PEM) are the most common wetland type in La Grande, by acreage, and were diverse. The most common emergent wetland dominants were reed canarygrass (*Phalaris arundinacea*, FACW), broad-leaf cattail (*Typha latifolia*, OBL), meadow foxtail (*Alopecurus pratensis*, FACW), Watson's [hairy] willow-herb (*Epilobium watsonii* [*ciliatum*], FACW-), American water plantain (*Alisma plantago-aquatica*, OBL), tapered rush (*Juncus acuminatus*, OBL) or dagger-leaf rush (*Juncus ensifolius*, FACW), sedges (*Carex* species), watercress (*Rorippa nasturtium-aquaticum* [*Nasturtium officinale*], OBL), mannagrass (*Glyceria* species, FACW+/OBL), and buttercup (*Ranunculus* species). Open water wetlands (POW) consist of ponds with emergent, scrub-shrub, and forested wetland fringes. Vegetation noted in the La Grande area during this study is shown in Table 3.

Changes in vegetation generally determined wetland / upland boundaries.

2.12 Soils

Soils in the La Grande area were typically dark, black clays and silty clays and often did not determine the wetland boundary. Soils were a distinguishing factor, however, where distinct topographic changes occurred.

2.13 Hydrology

Hydrology was more apparent during our July site visit than during October of 1995. Some wetland areas had strong indicators of wetland hydrology, notably wetland springs and seeps. Many emergent areas did not display strong indicators of wetland hydrology.

TABLE 2. CITY OF LA GRANDE LOCAL WETLAND INVENTORY
TOTAL WETLAND ACREAGE AND WETLAND ACREAGE BY TYPE

Jurisdictional Wetlands	Total Acres	POW	POWx	POWh	PEM	PEMx	PSS	PFO
BT-1	.67	-	.67	-	-	-	-	-
BT-2	.14	-	-	-	.07	-	.07	-
GLD-1	.54	-	-	-	-	.54	-	-
GS-1	.60	-	-	-	-	.30	-	.30
GS-2	3.50	-	-	-	1.75	-	-	1.75
GST-1	.40	-	-	-	.40	-	-	-
GST-2	.05	-	-	-	.05	-	-	-
GST-3	.08	-	-	-	.08	-	-	-
HP-1	1.30	-	1.04	-	.26	-	-	-
ICT-1	.80	-	-	-	.80	-	-	-
LT-1	.98	-	-	-	.88	-	-	.10
MC-3	.50	-	-	-	.40	-	.05	.05
MC-4,-5,-7	.90	-	-	-	.90	MC-5 PART MC-7 ALL	-	-
MCT-1	.50	.10	-	-	.35	-	.05	TRACE
MCT-2	.67	-	-	-	.67	-	-	-
MS-1,-2	.85	.09	-	-	.76	-	-	-
SR-1	9.00	-	-	5.40	1.80	-	1.80	-
SR-2,-3,-4,-5,-6	14.50	-	-	-	13.05	SR-5 EXCAVATED	1.45	-
T-1	2.30	-	-	-	2.07	-	.23	-
T-2,-3	.04	-	-	-	.04	-	-	-
TOTAL	38.32	.19	1.71	5.40	24.32	84	3.65	2.20

TOTAL OW: 7.30 | TOTAL EM 25.16

POW = Palustrine Open Water
POWx = Palustrine Open Water, Excavated
POWh = Palustrine Open Water, Diked/Impounded
PEM = Palustrine Emergent
PEMx = Palustrine Emergent, Excavated
PSS = Palustrine Scrub-Shrub
PFO = Palustrine Forested

Source: Fishman Environmental Services (as modified by the City of La Grande, 2002)

TABLE 3. VEGETATION of the LA GRANDE UGB (July and October, 1995)

Abbrev.[1]	Common Name	Scientific Name[2]	Indicator[3]
ACNE	box-elder	*Acer negundo*	FAC+
ACPL	Norway maple	*Acer platanoides*	NOL
ACSA	silver maple	*Acer saccharinum*	NOL, FACW[4]
ACMI	common yarrow	*Achillea millefolium*	FACU
AGIN	intermediate wheatgrass	*Agropyron intermedium*	NOL
AGRE	quack grass	*Agropyron repens*	FAC-
AGAL	redtop	*Agrostis alba*	FAC
AGRSPP	bentgrass	*Agrostis* species	-
AGST	spreading bentgrass	*Agrostis stolonifera*	FAC
AGTE	colonial bentgrass	*Agrostis tenuis*	FAC
ALPL	American water plantain	*Alisma plantago-aquatica*	OBL
ALSI	wavy-leaved alder	*Alnus sinuata*	FACW
ALGE	water foxtail	*Alopecurus geniculatus*	OBL
ALPR	meadow foxtail	*Alopecurus pratensis*	FACW
ANCO	mayweed chamomile	*Anthemis cotula*	FACU
ARMI	common burdock	*Arctium minus*	NOL
AREL	tall oatgrass	*Arrhenatherum elatius*	NOL
AVFA	wild oat	*Avena fatua*	NOL
BEAQ	tall Oregon grape	*Berberis aquifolium*	NOL
BESY	sloughgrass	*Beckmannia syzigachne*	OBL
BOISPP	spike_primrose	*Boisduvalia* species	FACW/+/_
BRCO	meadow brome	*Bromus commutatus*	NOL
BRIN	smooth brome	*Bromus inermis*	NOL
BRTE	downy cheat grass	*Bromus tectorum*	NOL
CAAQ	water sedge	*Carex aquatilis*	OBL
CAAT	slenderbeaked sedge	*Carex athrostachya*	FACW
CARESPP	sedge	*Carex* species	-
CAST	sawbeak sedge	*Carex stipata*	OBL
CECY	cornflower	*Centaurea cyanus*	NOL

[1]Abbreviation of scientific names as used in this study on field data sheets.
[2]Taxonomy follows Hitchcock and Cronquist, 1973, with synonymy [square brackets] following Reed, Jr., 1988b.
[3]Indicator = Wetland Indicator (Reed, Jr., 1988b).
[4]Indicator is different in different regions of the United States. *Acer saccharinum* is not listed as occurring in the Northwest Region (Region 9); it is listed as FACW in Region 4, the North Plains region (immediately east of the Northwest Region); (Reed, Jr., 1988a).

TABLE 3. VEGETATION of the LA GRANDE UGB, page 2

Abbrev.	Common Name	Scientific Name	Indicator
CHAL	lamb's quarters	*Chenopodium album*	FAC
CIIN	chicory	*Cichorium intybus*	NOL
CIAR	Canada thistle	*Cirsium arvense*	FACU+
COMA	poison hemlock	*Conium maculatum*	FAC+
COAR	field morning-glory	*Convolvulus arvensis*	NOL
COSE	hedge bindweed	*Convolvulus* [*Calystegia*] *sepium*	FAC
CONSPP	morning glory or bindweed	*Convolvulus* species	-
COST	red-osier dogwood	*Cornus stolonifera*	FACW
CRDO	black hawthorn	*Crataegus douglasii*	FAC
DAGL	orchard grass	*Dactylis glomerata*	FACU
DACAL	California oatgrass	*Danthonia californica*	FACU
DEPI	western tansymustard	*Descurainia pinnata*	NOL
DISP	teasel	*Dipsacus sylvestris*	FAC
DOEL	common downingia	*Downingia elegans*	OBL
ELAN	russian olive	*Elaeagnus angustifolia*	FAC
ELAC	needle spikerush	*Eleocharis acicularis*	OBL
ELPA	creeping spikerush	*Eleocharis palustris*	OBL
ELCI	basin wildrye	*Elymus cinereus*	FAC
EPGL	smooth willow-herb	*Epilobium glaberrimum*	FACW
EPWA	Watson's[hairy]willow-herb	*Epilobium watsonii* [*ciliatum*]	FACW-
EQAR	common horsetail	*Equisetum arvense*	FAC
EQLA	smooth scouring-rush	*Equisetum laevigatum*	FACW
FEAR	tall fescue	*Festuca arundinacea*	FAC-
FRLA	Oregon ash	*Fraxinus latifolia*	FACW
GALSPP	bedstraw	*Galium* species	-
GLGR	reed mannagrass	*Glyceria grandis* [*maxima*]	OBL
GNPA	lowland cudweed (?)	*Gnaphalium palustre*	FAC+
GRNA	low gumweed	*Grindelia nana*	FACU+
HODI	ocean spray	*Holodiscus discolor*	NOL
HOVU	cultivated barley	*Hordeum vulgare*	NOL
IRMI	western blue flag	*Iris missouriensis*	FACW+
IRPS	yellow iris	*Iris pseudacorus*	OBL
JUAC	tapered rush	*Juncus acuminatus*	OBL
JUBA	Baltic rush	*Juncus balticus*	FACW+
JUEF	soft rush	*Juncus effusus*	FACW
JUEN	dagger-leaf rush	*Juncus ensifolius*	FACW
JUNSPP	rush	*Juncus* species	-
JUTE	slender rush	*Juncus tenuis*	FACW-
KOSC	summer cypress	*Kochia scoparia*	FAC
LASE	willow lettuce	*Lactuca serriola*	FACU

TABLE 3. VEGETATION of the LA GRANDE UGB, page 3

Abbrev.	Common Name	Scientific Name	Indicator
LEMI	lesser duckweed	*Lemna minor*	OBL
LOPE	perennial ryegrass	*Lolium perenne*	FACU
LOMA	biscuit-root, desert-parsley	*Lomatium* species	-
LOPU	Spanish clover	*Lotus purshiana*	NOL
LUSE	silky lupine	*Lupinus sericeus*	NOL
MAGL	mountain tarweed	*Madia glomerata*	FACU+
MADSPP	tarweed	*Madia* species	FACU+/NOL
MAVE	pepperwort	*Marsilea vestita*	OBL
MESA	alfalfa	*Medicago sativa*	NOL
MELILOF	com. yellow sweet-clover	*Melilotus officinalis*	FACU
MEAR	field mint	*Mentha arvensis*	FACW-
MESP	spearmint	*Mentha spicata*	OBL
MIGU	com. large monkey-flower	*Mimulus guttatus*	OBL
ONAC	scotch thistle	*Onopordum acanthium*	NOL
PHAR	reed canarygrass	*Phalaris arundinacea*	FACW
PHPR	timothy	*Phleum pratense*	FAC-
PHMA	mallow ninebark	*Physocarpus malvaceus*	NOL
PIPO	ponderosa pine	*Pinus ponderosa*	FACU-
PLLA	English plantain	*Plantago lanceolata*	FAC[5]
PLMA	common plantain	*Plantago major*	FACU+[6]
POPA	annual bluegrass	*Poa annua*	FAC
POBU	bulbous bluegrass	*Poa bulbosa*	NOL
POCO	Canada bentgrass	*Poa compressa*	FACU+
POPR	Kentucky bluegrass	*Poa pratensis*	FAC
POASPP	bluegrass	*Poa* species	-
POAV	prostrate knotweed	*Polygonum aviculare*	FACW-
POCOC	water smartweed	*Polygonum coccineum* [*amphibian*]	OBL
POPE	spotted ladysthumb	*Polygonum persicaria*	FACW
POTASPP	pondweed	*Potamogeton* species	-
POGR	slender cinquefoil	*Potentilla gracilis*	FAC
POTRE	quaking aspen	*Populus tremuloides* [*tremula*]	FAC+
POTR	black cottonwood	*Populus trichocarpa* [*balsamifera*]	FAC
PRVI	choke cherry	*Prunus virginiana*	FACU
PYM	Acultivated apple	*Pyrus malus*	NOL
RAAQ	white water-buttercup	*Ranunculus aquatilis*	OBL

[5]Author believes that the indicators for *Plantago lanceolata* (FAC) and *Plantago major* (FACU+) are reversed.
[6]See footnote 5.

TABLE 3. VEGETATION of the LA GRANDE UGB, page 4

Abbrev.	Common Name	Scientific Name	Indicator
RAOC	western buttercup	*Ranunculus occidentalis*	FAC
RARE	creeping buttercup	*Ranunculus repens*	FACW
RANSPP	buttercup (aquatic, etc.)	*Ranunculus* species	-
RHGL	western sumac	*Rhus glabra*	NOL
RIAU	golden currant	*Ribes aureum*	FAC+
ROPS	black locust	*Robinia pseudoacacia*	FACU
RONA	watercress	*Rorippa nasturtium-aquaticum* [*Nasturtium officinale*]	OBL
RORSPP	cress	*Rorippa* species	FAC/wetter
ROCA	dog rose	*Rosa canina*	NOL
ROEG	sweetbriar rose	*Rosa eglanteria*	FACW
ROPI	clustered wild rose	*Rosa pisocarpa*	FAC
ROSSPP	rose	*Rosa* species	-
ROWO	Wood's rose	*Rosa woodsii*	FACU
RUDI	Himalayan blackberry	*Rubus discolor*	FACU
RUCR	curly dock	*Rumex crispus*	FAC+
SALAT	broadleaf arrowhead	*Sagittaria latifolia*	OBL
SAAL	golden willow	*Salix alba* var. *vitellina*	FACW
SABA	weeping willow	*Salix babylonica*	FAC+
SAEX	sandbar willow	*Salix exigua*	OBL
SALA	Pacific willow	*Salix lasiandra*	FACW+
SALSPP	willow	*Salix* species	FAC/wetter
SAKA	Russian thistle	*Salsola kali*	NOL
SACE	blue elderberry	*Sambucus cerulea*	FACU
SAOF	bouncing bett	*Saponaria officinalis*	NOL
SCMI	small-fruited bulrush	*Scirpus microcarpus*	OBL
SCVA	softstem bulrush	*Scirpus validus*	OBL
SIOR	Oregon checker-mallow	*Sidalcea oregana*	FACW-
SIAL	Jim Hill mustard	*Sisymbrium altissimum*	FACU-
SITSPP	squirreltail	*Sitanion* species	FACU-/NOL
SODU	climbing nightshade	*Solanum dulcamara*	FAC+
SOCA	Canada goldenrod	*Solidago canadensis*	FACU
SPBE	shiny-leaf spirea	*Spiraea betulifolia*	FAC
SYAL	snowberry	*Symphoricarpos albus*	FACU
TAOF	common dandelion	*Taraxacum officinale*	FACU
THMO	mountain thermopsis	*Thermopsis montana* [*rhombifolia*]	FACU
TRADU	yellow salsify	*Tragopogon dubius*	NOL
TRDU	yellow clover	*Trifolium dubium*	NOL
TRPR	red clover	*Trifolium pratense*	FACU
TRRE	white clover	*Trifolium repens*	FAC

TABLE 3. VEGETATION of the LA GRANDE UGB, page 5

Abbrev.	Common Name	Scientific Name	Indicator
TRAE	cultivated wheat	*Triticum aestivum* (or sp.)	NOL
TYLA	broad-leaf cat-tail	*Typha latifolia*	OBL
ULPA	Chinese elm	*Ulmus parvifolia*	NOL
VETH	common mullein	*Verbascum thapsus*	NOL
VEAM	American speedwell	*Veronica americana*	OBL
VEPE	purslane speedwell	*Veronica peregrina*	OBL
VESE	thyme-leaved speedwell	*Veronica serpyllifoli*	OBL
VISA	common vetch	*Vicia sativa*	NOL
VICSPP	vetch	*Vicia* species	-

3 WETLAND FUNCTION AND VALUE ASSESSMENT

Wetland function and values were assessed for each jurisdictional wetland and each publicly-owned non-jurisdictional wetland in the City of La Grande Urban Growth Boundary with the October 1995 draft revision of the *Oregon Freshwater Wetland Assessment Methodology* (Roth et al., 1993). A summary sheet for wetland functions and values for each assessed wetland is included in the Jurisdictional Wetlands Appendix. The following wetlands were assessed separately or grouped together for assessment:

OREGON METHOD GROUPED WETLANDS

GLD-1	Gekeler Lane Ditch
GS-1	Gekeler Slough (east of Hwy 30)
GS-2	Gekeler Slough (west of Hwy 30)
GST-2,-3	Gekeler Slough Tributary (wetland pockets)
HP-1	"Hoffman Park Pond"
ICT-1	Irrigation Canal Tributary (seep west of Pioneer Park)
MC-3	Birnie Park
MC-4,-5,-6,-7	Mill Creek in the Window Area
MCT-1	Mill Creek Tributary pond
MCT-2	Mill Creek Tributary intermittent drainage wetland
MS-1,-2	McAlister Slough
SR-1,-2,-3,-4,-5,-6	Spence Reservoir (Davidson Lake) and seeps
LT-1, BT-1,-2	Little Taylor Creek and Big Taylor Creeks
T-1	Taylor Creek
T-2	Spring near Taylor Creek Floodway

Wetland functions and values include: wildlife habitat, fish habitat, water quality, hydrologic control, sensitivity to impact, enhancement potential, educational uses, recreation, and aesthetics. A description of each attribute and rationale for the questions in the assessment method follow.

3.1 Wildlife Habitat

Wetlands provide a diversity of habitats for many wildlife species. A single wetland often cannot satisfy all requirements for wildlife use, so its proximity to other bodies of water or upland areas is important. Buffers and corridors are also essential for this reason, and they reduce human disturbance as well. Many species also have special habitat requirements: Good water quality is necessary for amphibians and mammals; structural diversity is important for birds; and a combination of open water and grazing areas is important for waterfowl.

For this assessment, **urban wetlands are those within urban growth boundaries or urban or rural service areas**. Because of the impacts of human activities, urban wetlands may not satisfy as many habitat requirements as wetlands in undeveloped areas. This should not be interpreted to mean that urban wetlands have limited value for all wildlife. The importance of an urban wetland may be increased because of its location and surroundings.

In Northwest wetlands, vegetation is the most important component of wildlife habitat. It is widely recognized that plant community diversity increases animal community diversity. The existence of two Cowardin classes adjacent to each other may also improve wildlife habitat value because some wetland wildlife species use the edge between plant communities. ("Edge" describes the border between vegetation types or between a vegetation type and open water.)

Structural diversity is also important. If several layers of vegetation are present, more diverse habitat types are provided. (Different birds nest in different layers.) In addition, the number of layers affects the amount of natural debris, which is necessary for amphibians and other wildlife.

Wooded and shrub wetlands provide habitat for the largest overall species assemblages. Emergent wetlands associated with open water are also an essential habitat for a large number of wetland species, particularly waterfowl, amphibians and wading birds. Emergent wetlands without open water provide habitat for wetland species to a lesser degree.

Interspersion occurs when two or more wetland types or upland inclusions create a mosaic or pattern. In a wetland composed of approximately concentric bands of vegetation, such as cattails ringed by shrubs, interspersion is low. At the opposite extreme, small patches of shrubs scattered throughout an emergent marsh represent a high degree of interspersion.

When two or more vegetation types are highly interspersed, a great deal of edge is created. Edge is important because many wildlife species are edge dwellers. Generally, the greater the edge, the greater the diversity of wildlife.

Open water is essential to a number of wetland wildlife species, including waterfowl, wading birds, amphibians and some reptiles.

Wetland wildlife species will often use deep water and travel between that and the wetland. Water must be available during critical phases for the wildlife that use it. Water available during the nesting season is more valuable to wildlife than water available during the winter only.

Proximity to other wetlands increases a wetland's utility as habitat. Nearby wetlands sometimes contain features absent from the assessment wetland. For example, birds such as the great blue heron may roost near one wetland but travel to another to fish if the wetland where they roost doesn't have an ample supply of fish.

This criterion applies only in western Oregon. Because of the dry climate in eastern Oregon, isolated wetlands provide important habitat to both local and migratory species.

Poor water quality can harm many terrestrial and aquatic species. The character of a wetland ecosystem can change when exposed to nutrients and other chemicals beyond tolerable limits. Excess nutrients, for example, can cause oxygen deficiencies, which in turn can cause a change in the species composition of both plant and animal communities. Studies in Washington and elsewhere have indicated that amphibians are especially sensitive to water quality.

Wildlife habitat generally deteriorates as land use changes from forested land to agricultural land to urban land. Certain game species, such as deer and some waterfowl, may benefit from land clearing. However, the majority of wildlife species are affected adversely when the land is developed because of fencing, lighting and loss of habitat.

A buffer zone, an uncut or undisturbed area of vegetation providing wildlife cover, increases a wetland's wildlife habitat potential. It provides habitat for both upland animals and wetland dependent species that require upland habitat for parts of their life cycle. A buffer zone also decreases the impacts of disturbance on the wetland. This is particularly important for nesting birds, which may be disturbed by people and household pets.

Well-vegetated buffer areas and corridors are particularly significant in urban areas because of their beneficial effect on water quality as well as their value for wildlife.

3.2 Fish Habitat

This index assesses the contribution of wetlands associated with streams, rivers, lakes or ponds to fish habitat. **The term "associated with" means the wetlands are connected to the stream or lake by surface water.** The assessment should be done on the reach of the stream or on a section of lake that actually borders the wetland or is contained within the wetland.

A stream is defined as a waterbody with a distinct channel and flow. Examples include

sloughs, perennial streams and intermittent streams. If dikes or berms that have been built on the stream banks between the stream and wetland do not allow continual exchange of surface water, do not complete this index. If both a stream and lake are present, choose the one with the longest wetland surface connection.

Wetlands that contribute to habitat for fish include areas with dense, overhanging vegetation. This vegetation provides shade, cover and food sources to related waterways and lakes. Wetlands that provide spawning and rearing opportunities as well supply additional fish habitat. However, a wetland need not actually contain fish to contribute to fish habitat because wetlands may perform important functions for fish-bearing waters downstream.

The assessment of fish habitat is divided into two parts. The first part evaluates the wetland habitat associated with rivers and streams. If there is no stream or river associated with the wetland, then leave the first part out of the assessment. The second part evaluates the wetland habitat associated with ponds (water greater than 6 feet deep) and lakes. If there is no lake or pond associated with the wetland, then leave the second part out of the assessment. If no stream, river, pond or lake is associated with the wetland, then leave this index out of the assessment altogether.

3.2.1 Streams

Many Oregon streams are unsuitable for anadromous and resident fish because riparian vegetation has been cleared. High water temperatures that result from removal of stream-side vegetation can make a stream unsuitable for some fish species. Salmonids and some resident fish are particularly susceptible to elevated water temperatures. The amount and type of stream-bank cover also affects the amount of large woody debris in the stream or river system. In addition, stream-bank vegetation provides habitat for insects, an important food source for salmonids.

Although the species or age composition of low- and high-gradient streams is different, both can provide habitat for fish. Artificially channelized or extensively modified streams, however, usually don not provide the good fish habitat that natural stream channels do.

Cover is essential for good fish habitat. It provides refuge from predators and serves as substrate for insect larva, which are a good food source for some fish species. The presence of large pieces of woody material in pools is essential for providing adequate winter habitat for salmonid species. In addition, large pieces of woody material contribute to bank stability, dissipate energy, generate pool formation and encourage meandering. The breakdown of this material is also important in the nutrient cycle of the stream or river.

Poor water quality can harm many aquatic species. The whole character of a wetland ecosystem can change when it is exposed to nutrients and other chemicals beyond tolerable limits. Excess nutrients, for example, can cause oxygen deficiencies, which in turn can cause a species composition change in both plant and animal communities.

Fish habitat generally deteriorates as land use becomes more intensive, e.g., changes from forested land to agricultural land (including rangeland) to urban land. The change in intensity often changes the structure of the habitat and increases runoff, pollutant loading and sedimentation.

The potential for a wetland to benefit fish is directly related to the presence of fish in the stream or river reach within or adjacent to the wetland.

The depth of the pond or lake is important for spawning and may be important for rearing. A mixture of shallow, medium and deeper water is optimum to provide different habitat types.

3.2.2 Lakes and Ponds

Cover essential is for good fish habitat. It provides refuge from predators and serves as substrate for insect larva, which are a food source for some fish species. The presence of large pieces of woody material in wetlands is essential for providing adequate winter habitat for salmonid species. In addition, large pieces of woody material contribute to bank stability and dissipate energy. The breakdown of this material is also important in the nutrient cycle of the pond or lake.

Shoreline cover provides shading, which moderates water temperature in lakes and ponds. High water temperatures that result from removal of lake-side vegetation can make a lake unsuitable for some fish species. Shoreline vegetation also provides food, large pieces of woody debris and cover from predators. Woodland and scrubland vegetation provides more shading than herbaceous vegetation.

Poor water quality can harm many aquatic species. The whole character of a wetland ecosystem can change when it is exposed to nutrients and other chemicals beyond tolerable limits. Excess nutrients, for example, can cause oxygen deficiencies, which in turn can cause a species composition change in both plant and animal communities.

Fish habitat generally deteriorates as land use becomes more intensive, e.g., changes from forested land to agricultural land (including rangeland) to urban land. The change in intensity often changes the structure of the habitat and increases runoff, pollutant loading and sedimentation.

The potential for a wetland to benefit fish is directly related to the presence of fish in the pond or lake.

3.3 Water Quality (pollutant removal)

3.3.1 Sediment Trapping

During periods of heavy rainfall, water runoff may cause erosion and increase solids suspended in receiving surface waters. The excess sediment entering water systems can damage aquatic ecosystems. For example, sediment accumulation in stream bottoms can smother spawning areas and kill aquatic insect larvae. It can also reduce the storage capacity

of downstream water supply reservoirs.

Wetlands perform an important function by trapping sediment from waters that pass through them. As water flows through wetlands, it is slowed by vegetation, and sediment settles to the bottom before the water moves farther downstream. As much as 90% of the solids suspended in the water may be removed as the water moves through wetlands, resulting in cleaner water entering streams, rivers, lakes and estuaries.

3.3.2 Nutrient Attenuation

Nitrogen and phosphorus are the two nutrients most often associated with water pollution. They are also main ingredients of fertilizers used on agricultural fields and lawns, and both are found in high concentrations in discharges from sewage treatment plant and livestock operations. Excessive amounts of nitrogen and phosphorus in lakes and slow-moving streams can cause algal blooms and subsequent oxygen deficiencies, which may kill fish and reduce water quality. The processes that occur as a result of excess nutrients are lumped together under the term "eutrophication." Within limits, wetlands can reduce nutrient levels so that the effects of eutrophication on downstream areas are prevented or reduced. This index considers only point and non-point pollutant sources that are due to land uses in the watershed.

Wetlands bordering a perennial or intermittent stream or lake are areas into which floodwaters spread during periods of high runoff, enabling the wetlands to remove pollutants.

Water level fluctuation in the wetland indicates the ability to retain water. Impounded or standing water acts as a sediment trap because it greatly slows the flow of the incoming water, allowing suspended solids to settle out. Additionally, the slower velocity increases the contact time of the water with vegetation, resulting in uptake of nutrients by the vegetation. These actions function to reduce pollutant loads.

The more dense the vegetation, the greater the wetland's ability to take up nutrients. A dense stand of persistent emergent plants (such as cattail and rush) along with floating and submerged aquatics would tend to provide maximum nutrient uptake during the growing season. Wooded and scrub-shrub wetland remove nutrients mainly through settling of suspended solids in runoff and flood waters.

The larger the wetland, the greater its capacity and ability to filter pollutants. Small wetlands connected by surface water act as a series of filters and thus function similarly to a larger wetland.

Urbanized areas have more impervious surface areas and concentrate pollution sources. Wetlands in urban areas are important for filtering the runoff water before it enters a stream.

A watershed with upstream pollutant loading sources needs wetland to reduce pollutant levels in water before it is delivered downstream.

3.4 Hydrologic Control (flood control and water supply)

Wetlands function as natural water storage areas during periods of high runoff and stream flooding. At times they act as flood regulators by holding floodwater, then slowly releasing it downstream. This temporary storage reduces the amount of water downstream during floods, thereby reducing peak flows. Through this flood storage mechanism, wetlands associated with tributaries of streams or rivers can prevent water from all tributaries reaching the stream or river at the same time (this is called desynchronization). Wetlands can also act as floodwater "brakes." For example, water flowing through riverine wetlands during floods is slowed by trees, shrubs, reeds, rushes and other wetland vegetation. Wetlands acting as brakes can reduce flood peaks and thereby reduce flood damage, bank and bed erosion, and other adverse effects caused by fast moving water.

Wetlands also have long-term water holding abilities. Wetlands may store water for longer periods, sometimes for months. The slow draining of these wetlands to surface water or groundwater as the water level in the wetland recedes may contribute to maintenance of base flows in streams hydrologically connected to the wetland. The ability of this long-term water storage to maintain stream flows is called "flow conservation."

Wetlands located within a floodplain or enclosed basin have a greater opportunity to receive and store water from surface flows and to release it slowly downstream or into the groundwater.

Water marks are valid indicators of seasonal and episodic stage fluctuations in wetlands and, as such, are strong indicators of storage function.

Generally, the larger the wetland, the greater its ability to store and attenuate flood flows.

Wetlands with no outlets or with restricted or controlled outlets generally will store greater amounts of water than wetlands with unrestricted flow outlets. Also, the wetland can store water for slower release into the water system.

Densely vegetated wetlands with vegetation greater than 6 feet tall are better able to control flood flows than wetlands dominated by open water or low growing vegetation, which generally offers little resistance.

If the wetland is upstream from developed areas, its ability to control floods becomes more important.

Runoff volume is directly related to the level of development in the watershed: The more development, the more runoff. The opportunity for the wetland to provide flood control and flow conservation to a community is greater where runoff is greater.

3.5 Sensitivity to Impact

The wetland's ability to provide ecological function depends on its condition. If past environmental impacts have affected its ability to sustain itself, then its ability to recover from additional impacts is diminished. Factors such as vegetation type contribute to a wetland's sensitivity. Forested wetland types, for example, are considered particularly sensitive because their vegetation structure is complex and slow to recover once disturbed. Also, a wetland is considered sensitive to impact if the quantity and quality of its water supply has been altered or degraded and if the intensity of adjacent land use suggests that the impairment is permanent. Under such circumstances, the wetland will have lost some of its natural capacity to recover from impacts. Small, incremental impacts to sensitive wetlands can cause broader, secondary effects throughout the wetland system. A wetland's resilience depends on whether adverse effects caused by future impacts will be localized or will spread throughout the wetland and beyond into other ecosystems. The sensitivity to impact index is an indication of risk to the wetland because of future changes in the watershed and land surrounding it. The index gives an indication to decision markers of the future conditions of the wetland if planned activities develop.

Wetlands located in areas with natural hydrologic conditions are more resilient than wetlands located in altered settings. Control structures such as dams can divert water toward or away from wetland ecosystems. Because plant growth and decomposition and other processes operating within wetlands are controlled in part by water supply, changes in water distribution can disrupt ecosystem processes and reduce the wetland's capacity to recover from impact.

Ecosystem processes like nutrient cycling are controlled in part by the chemistry of water entering the system. Changes in water quality beyond a wetland's ability to adjust can disrupt ecosystem processes and threaten the wetland's existence.

The intensity of human-caused impacts to a wetland affects the wetland's capacity to absorb and withstand those impacts. Land use is an approximation of a wetland's exposure to disturbance.

The duration of human-caused disturbance to a wetland also affects its capacity to absorb and withstand new or additional impacts. Zoned land-use is an approximation of the wetland's future exposure to disturbance.

The capacity of an individual type of wetland to recover from disturbance is controlled by its community structure. Woody communities exhibit higher structure and are less resilient because of their slow rate of biological turnover.

3.6 Enhancement Potential

This index evaluates whether impacted or lost wetland functions can be restored at a degraded wetland site. It does **not** evaluate the enhancement potential of changing the vegetation through exotic weed removal, which is considered a management issue. Wetland enhancement provides opportunities to connect wetlands and adjacent natural areas, thus creating larger natural systems that provide corridors for animal movement. Enhancement potential represents how

well a wetland might respond to the mitigation of past environmental impacts. The recovery of a wetland, and in particular its functions, depends upon the site's hydrology, its soils and substrate and the presence of environmental buffers surrounding the wetland.

For example, a wetland can be enhanced if its soils are minimally disturbed and if it can receive water from a known perennial or intermittent source. However, the enhancement potential of a site for a specific function may still be adversely impacted because of the surrounding land use. The wetland may be in an area where the source water quality is degraded and where weedy plants can invade the system.

If the wetland's wildlife habitat function is intact (refer to the results of the assessment criteria for wildlife habitat), do not complete the enhancement potential index.

The success of an enhancement project depends upon the wetland's existing capacity from providing a desired function. Wetlands that are either functionally intact or that are not functional offer little enhancement potential. Wetlands have a greater enhancement potential if their observed functions suggest that structural problems caused by previous environmental impacts can be easily remedied. For purposes of this index, a wetland that provides diverse wildlife habitat is functionally intact and efforts to enhance other functions may adversely affect the diversity of the wildlife habitat.

The success of a wetland enhancement project depends upon the ease with which local hydrologic regimes can be determined and, if needed, engineered to mitigate impaired conditions.

The variability of environmental conditions across large wetlands is greater than in small wetlands. The opportunity for finding and working with conditions that are amenable to enhancement efforts are therefore greater in large wetlands.

Open space and forest areas provide better environmental buffers to work sites within the wetland (e.g. they preclude unwanted access to new water control structures).

The enhancement potential of a wetland for a desired functional performance is greater when the quality of its source water is not impaired. The potential for functional performance also increases when the assessed wetland is not surrounded by land uses that expose the system to future impacts.

3.7 Education

Field trips to wetlands are an important part of the educational experience. At wetland "classrooms" students can learn about microscopic-level and macroscopic-level ecological principles. The Oregon Method bases the educational assessment on accessibility and diversity of the wetlands. Wetlands that provide fish and wildlife habitat and permit access to other natural features allow for a broader course of study. This index evaluates wetland for educational use, not research.

If public access to a wetland is denied, the wetland cannot be used as an educational site. If public access exists, controlling the access limits disruption of the site. If the site is in a management area, the educational opportunities could be greater because of the availability of pamphlets and brochures. Management practices themselves could be of interest to users. Indicate in the "Notes" column, whether the site is in a management area.

A safety hazard is an obvious drawback to an educational site or a reason not to use it.

The Oregon Method assumes that a user's exposure to ecological principles is greater in a naturally functioning ecosystem that is likely to contain fish or wildlife species.

Access to other habitat types allows users to examine the interactive nature of upland and aquatic systems. The presence of non-wetland plant or aquatic communities increases the educational value of the wetland by allowing the learner to compare wetlands, uplands and other aquatic systems.

Access points within a reasonable distance are important if a wetland is to be a good educational site. But even nearby access points are of little value if they represent a hazard to users.

The educational potential of a wetland is increased if people with limited mobility can also use the site. Note: This question is not included in the assessment criteria, but it should be included on the answer sheet for assessment questions.

3.8 Recreation

Many recreational activities take place in and around wetlands. Wetlands associated with open bodies of water also support boating and fishing. Many people simply enjoy the beauty and sounds of nature and spend time walking in or near wetlands observing plant and animal life.

This index consists of the most common recreational activities associated with wetlands. It does not take into account motor-associated activities.

Access near the wetland is necessary to enable unloading of boats and equipment and allow walking to trails or observation areas.

Many wetlands are found along streams or lakes suitable for canoeing, kayaking or other non-motorized boating. This provides important recreational opportunities. In addition, a canoe route can provide an important viewpoint for enjoying the aesthetic beauty of a wetland.

Hunting, fishing, wildlife observation, photography and plant identification are recreational activities that take place in or around wetlands. Controlled movement of users limits adverse impacts to the wetland.

Wetlands are likely to be ideal areas for wildlife observation and for photography if they contain diverse wildlife habitat.

Fishing is a popular activity associated with wetland areas and adjacent waterways.

Wetlands are ideal hunting areas. Although there will be game species in most wetlands, some wetlands may be closed to hunting.

3.9 Aesthetic Quality

"Beauty is in the eye of the beholder." Although this index is subjective, it is included to assess the open space and overall pleasing qualities of wetland to local residents and users. The assessment assumes the user will be visiting the wetland, not just driving by in a car, bus or on a bicycle.

Views of wetlands with a mix of wetland types are often considered most pleasing.

The more area that is visible, the more pleasing the wetland is considered.

Trash and other signs of disturbance mar the aesthetics of a site, but they often can be removed or hidden. Power lines and other large permanent structures may distract the viewer and cannot be removed.

Wetlands, which are generally low-lying features, often contrast dramatically with the surrounding areas, or their aesthetics are enhanced by the surrounding landscape.

Unnatural odors reduce the aesthetic quality of wetlands.

Subjective impressions of noise levels vary from person to person, but most agree that continual noise such as that from a busy highway detracts significantly from aesthetic appreciation of wetland. Noise can be particularly distracting to observers who are listening for bird songs and other wildlife sounds.

3.10 Wetland Ratings for the City of La Grande

Wetland ratings for the functions and values assessed by the Oregon Method are shown in Table 4. Individual assessment sheets and question and answer sheets for each assessed wetland are shown in Appendix A.

3.11 Notes on the Fish and Wildlife of the City's Urban Growth Boundary Area

According to Oregon Department of Fish and Wildlife (ODFW) records (pers. comm. Mark Henjum), the following sensitive, threatened, and endangered species may occur within the study area:

Sensitive Species	Threatened Species	Endangered Species

painted turtle
yellow-billed cuckoo
bank swallow
northern goshawk
Swainson's hawk
Townsend's big-eared bat
bull trout
bald eagle
chinook salmon
peregrine falcon

ODFW also has historic information, with some current confirmation, regarding runs of rainbow trout (anadromous steelhead or resident) in Mill Creek (pers. comm. Jeff Zakel). Some components of Taylor Creek may also have fish. The La Grande Ranger District (pers. comm. Mark Penninger) also reports that the ODFW's 1991 fish survey of the Grande Ronde River included the following species:

chinook salmon
steelhead
redband trout
dace species
sculpin species
northern squawfish
shiner species
redside shiner
bridgelip sucker

TABLE 4. CITY OF LA GRANDE WETLAND ASSESSMENT SUMMARY TABLE - OREGON METHOD

Wetland	WH	FH	WQ	HC	SI	EP	Ed	Rec	Aesth
BT-1,-2	D	D	I	I	P	H	HE	P	P
GLD-1	D	NA	D	D	P	M	P	P	P
GS-1	D	D	I	D	P	M	P	P	P
GS-2	D	D	I	I	S	M	P	N	P
GST-1,-2,-3	D	NA	D	D	P	M	P	N	P
HP-1	D	D	D	I	P	H	HE	P	CP
ICT-1	D	NA	D	D	P	M	HE	P	CP
LT-1	D	D	I	I	P	H	HE	P	P
MC-3	D	NA	I	D	P	M	HE	P	CP
MC-4,-5,-7	D	NA	I	I	P	H	HE	P	CP
MCT-1	I	I	I	I	P	NA	HE	N	CP
MCT-2	D	D	D	D	P	M	HE	P	CP
MS-1,-2	D	NA	D	D	P	H	P	N	P
SR-1,-2,-3,-4,-5,-6	I	I	I	I	P	NA	HE	PR	CP
T-1	D	NA	I	I	P	M	N	P	P
T-2,-3	D	NA	D	D	P	M	HE	N	CP

WH = Wildlife Habitat (D = Degraded; I = Intact)
FH = Fish Habitat (D = Degraded; I = Intact, NA = Not Applicable)
WQ = Water Quality (D = Degraded; I = Intact)
HC = Hydrologic Control (D = Degraded; I = Intact)
SI = Sensitivity to Impact (P = Potentially Sensitive; S = Sensitive to future impacts)
EP = Enhancement Potential (M = Moderate; H = High; NA = Not Applicable)
Ed = Educational Value (P = Potential for Educational Use; HE = Has Educational Use; N = Not Appropriate for Educational Use)

Rec = Recreational Value (P = Potential to Provide Recreational Opportunities; N = Not Appropriate for Recreation; PR = Provides Recreational Opportunities)

Aesth = Aesthetic Quality (P = Potentially Pleasing; CP = Considered Pleasing)

Source: Fishman Environmental Services (as modified by City of La Grande, 2002)

ODFW also reports that brook trout, bull trout, and stocked coastal rainbow trout may inhabit or move through the Grande Ronde River where it passes through the City. The occurrence of brook trout or bull trout here would be considered rare. The Oregon Natural Heritage Program of The Nature Conservancy has documented spring/summer runs of the Snake River Chinook salmon in the Grande Ronde River (not located specifically).

No sensitive, threatened, or endangered species were noted within the UGB during this wetland study; however, this study was not designed as a sensitive species inventory.

3.12 Notes on the Water Quality of the Grande Ronde River

The Grande Ronde River in the vicinity of La Grande has been rated as severe for water quality conditions (DEQ, 1988). The most commonly cited causes of stream degradation were removal of thermal cover over streams and removal of riparian vegetation. Other causes cited in the DEQ study included animal waste, surface erosion, and road runoff associated with grazing and forestry-related activities of timber management and harvest, and road construction. The following conditions were rated severe and moderate:

Severe
water quality affecting water contact recreation or shellfish
water quality conditions affecting drinking water supplies

Moderate
water quality conditions affecting fish
stream quality conditions affecting aquatic habitat

Pollution types and levels noted for Station 276, closest to La Grande, include severe levels of bacteria/viruses, and moderate levels of turbidity, low dissolved oxygen, pesticides, toxics, sediment, erosion, low flow, and plants.

The Oregon Department of Environmental Quality (DEQ) is in the process of establishing total maximum daily loads (TMDLs) for pollutants on waters of the State which have been designated as "water quality limited." The "water quality limited" designation is given to streams where the established water quality standards are not being met or where beneficial uses are not protected. Water quality limited streams often need improved pollution control such as increased treatment of wastes prior to discharge to the stream. *Note: The Upper Grande Ronde River Sub-Basin TMDL report was completed by DEQ in December, 1999.* Parameters of concern for the Grande Ronde River include fecal bacteria, pH, nuisance aquatic growth, and temperature. The TMDL has been set for phosphorus during the summer, in order to control or reduce the level of nutrients in the river during that time. Suspected point sources (of nutrients) include sewage treatment plants and log ponds, and suspected non-point sources include forestry and agriculture practices and a naturally high background level. The DEQ has instituted several programs to monitor and evaluate the effectiveness of non-point source controls and management changes within the Grande Ronde Basin, as well as supporting watershed enhancement efforts by private land owners through the Union County

Soil and Water Conservation District. Other riparian enhancement and in-stream restoration projects have been supported by the Confederated Tribes of the Umatilla Indian Reservation. The Little Catherine Creek Watershed Enhancement Project has been supported by Boise Cascade and involves implementation of an intensified livestock grazing management program, sediment load reductions through road closures, gate installations, road seedings, and upland revegetation, and riparian habitat restoration. DEQ is also developing information to prioritize flood plain, riparian, and instream restoration projects in the Grande Ronde Basin.

4 CONCLUSION

Wetlands within the Urban Growth Boundary of the City of La Grande were mapped and inventoried according to DSL LWI guidelines. Each wetland site was described and assessed using the Oregon Method. 47 wetlands were inventoried (27 jurisdictional wetlands [Appendix 1], 17 non-jurisdictional wetlands [Appendix 2], and 3 waters of the State [Appendix 3]). Wetland acreage within the study area was approximately 39.43 acres, including 7.61 acres palustrine open water, 25.15 acres palustrine emergent, 3.65 acres palustrine scrub-shrub, and 3.02 acres palustrine forest wetlands. *Note: An update of the inventory was conducted in 2002 by the City of La Grande. This updated inventory resulted in the elimination of wetlands that were filled between the time of the 1995 inventory and the 2002 update. The resultant wetland acreage as of 2002 is approximately 38.32 acres, including 7.3 acres of palustrine open water, 25.16 acres of palustrine emergent, 3.65 acres of palustrine scrub-shrub, and 2.20 acres of palustrine forest wetlands. The wetland summary sheets, wetland determination data sheets and wetland function and value assessment sheets were amended as a result of wetland changes that have occurred over this time period.*

We recommend conducting the review of this inventory during the spring when wetland hydrology is present. We enjoyed the project, and the people, of La Grande.

5 PROJECT STAFF

Fishman Environmental Services Project Staff

C. Mirth Walker, B.A., PWS, Wetlands Program Manager; Project Manager
Ms. Walker has expertise in conducting wetland determinations and delineations, wetland inventories, and preparing wetland mitigation plans; she also has wetland project management skills and provides quality control for projects. Mirth has a degree in Biology and Psychology, is a provisionally certified Wetland Delineator (U.S. Army Corps of Engineers Seattle District) and is a certified Professional Wetland Scientist (Society of Wetland Scientists). She is a Pacific Northwest native. Mirth conducted field work, analyzed data, assessed wetland functions, prepared the wetland report, and participated in public meetings.

Christie Galen, B.S., Ecologist
Ms. Galen has expertise in conducting natural resource inventories, wetland function and values assessment, habitat restoration and monitoring, and threatened and endangered species inventories and evaluations. Christie has a degree in Biology and is a Pacific Northwest native. Christie conducted field work and participated in the data analysis and the first public meeting.

Mark Vlahakis, B.S., Soil Scientist
Mr. Vlahakis is experienced in wetland delineation and mitigation plan development. He has a degree in Soil Science. Mark assisted with the initial aerial mapping and in soil discussions.

Paul A. Fishman, M.S., CEP, Senior Ecologist
Mr. Fishman has extensive experience in ecological studies and natural resource management. Paul has a masters degree in Animal Ecology. Paul assisted with contract management and quality assurance.

Eagle Cap Consulting Project Staff

Randy Krichbaum, Biologist / President
Mr. Krichbaum is very familiar with the vegetation, soils, and hydrology of northeastern Oregon. Randy has a degree in Zoology. Eagle Cap Consulting, based in Enterprise, Oregon, has completed a number of resource investigations in the Grande Ronde watershed and has completed numerous rare plant inventories, wetland delineations, noxious weed surveys, wildlife and botanical surveys. Randy conducted field work and assisted with plant identification.

City Staff

Dan Moore, AICP, City Planner
Mr. Moore has a bachelor's degree in Geography and received his masters degree in Urban and Regional Planning from the University of Oregon in 1990. Dan has been the City Planner of La Grande since 1991 and served as supervisor for this project.

Amy Drought, Planning Technician
Ms. Drought has a bachelor's degree in Political Science and French and will receive her masters degree in Community and Regional Planning from the University of Oregon in December 1995. Amy is currently a Planning Technician for the City of La Grande, and Project Coordinator for the City's Surface Water Management Plan. Amy served as Project Coordinator for this project.

John Clymer, GIS Coordinator
Mr. Clymer has both a bachelor's degree and a masters degree in Electrical Engineering, and a Ph.D. in Computer Science. John was responsible for the wetland inventory map preparation and digitizing wetland boundaries.

City Staff Associated with 2002 Project Update and Completion

Michael A. Hyde, AICP, Community Development Director/Planner
Mr. Hyde has a Bachelor's Degree in Urban and Regional Planning from Western Washington University. He has 22 years of Oregon planning experience in Pendleton and La Grande. Mr. Hyde served as supervisor of the 2002 project update and authored amendments of the report.

Michael J. Boquist, Associate Planner
Mr. Boquist has a Bachelor's Degree in Geography from Central Washington a University. Mr. Boquist has served as an Associate Planner for the City of La Grande since 1998.

Lisa J. Gibson, Administrative Secretary
Ms. Gibson provided secretarial services for the 2002 project update.

Margot Irvin, GIS Consultant
Ms. Irvin has served as La Grande's GIS Consultant since 2000. She did field checks, updated the Wetland Inventory Map and prepared updates of the wetland acreage data.

Barbara Trick, Clerk-Typist
Ms. Trick has provided staff support to the City of La Grande Community Development Department since early 2002.

REFERENCES

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.

Department of Environmental Quality, 1994. *Water Quality Status Assessment Report. 305(b) Report.*

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

Division of State Lands, 1992. Wetland Determination for Proposed Armory Site in La Grande (letter). October 1, 1992, Joel Shaich.

Division of State Lands, 1993. Wetland Determination for Sunny Hills I Subdivision (letter). November 12, 1993, Ken Bierly.

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

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

Federal Emergency Management Agency, Federal Insurance Administration, 1980a. *Flood Insurance Study.* City of La Grande, Oregon, Union County. Community Number 410260. March, 1980.

Federal Emergency Management Agency, Federal Insurance Administration, 1980b. Flood Insurance Rate Map Community Panel Numbers 410260 001 B and 002 C, City of La Grande, Oregon, Union County. September 30, 1980.

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

Johnson, C.G. Jr., 1993. *Common Plants of the Inland Pacific Northwest.* USDA Forest Service Pacific Northwest Region. U.S. Government Printing Office. R6-ERW-TP051-93.

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

La Grande, City of, 7/22/94. Buildable Vacant Lands map, 1 inch = 1400 feet.

La Grande, City of, 4/28/95. Drainage System map (rivers and streams), 1 inch = 1300 feet.

La Grande, City of, 4/19/95. Drainage System map (storm sewers), 1 inch = 1300 feet.

La Grande, City of, 2/16/95. Fact Sheet.

La Grande, City of, 9/23/94. Flood Plain Zones map, 1 inch = 1300 feet.

La Grande, City of, 12/12/94. Soils map (geologic), 1 inch = 1300 feet.

La Grande, City of. Union County tax lot maps (assessor maps), 1 inch = 100 and 400 feet.

La Grande, City of, 7/17/95. Watershed map, 1 inch = 1800 feet.

La Grande, City of, 7/17/95. Waterways map, 1 inch = 900 feet.

La Grande, City of, 1/24/94. Zoning map, 1 inch = 900 feet.

La Grande Union County Chamber of Commerce. Street map and Guide.

National Audubon Society, 1986. *Familiar Trees of North America, Eastern Region.* Ed. by A. Whitman. Alfred A. Knopf, New York.

The Observer, 7/7/95. Garage Sales Map (showing streams and drainages).

Oregon Department of Fish and Wildlife, La Grande, Oregon, (541) 963-2138: Mark Henjum, Region Wildlife Biologist, and Jeff Zakel.

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., 1988a. *National List of Plant Species that Occur in Wetlands: 1988 National Summary.* U.S. Fish and Wildlife Service Biological Report No. 88 (24).

Reed, P.B., Jr., 1988b. *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, 1993 (October 1995 draft revision). *Oregon Freshwater Wetland Assessment Methodology.* Ed. by S.G. McCannell. Oregon Division of State Lands, Salem, Oregon.

Taylor, R.J., 1990. *Northwest Weeds. The Ugly and Beautiful Villains of Fields, Gardens, and*

Roadsides. Mountain Press Publishing Co., Missoula.

Taylor, R.J., 1992. *Sagebrush Country. A Wildflower Sanctuary*. Mountain Press Publishing Co., Missoula.
Telfax, Inc., 1995. La Grande Regional Directory for Union, Wallowa, Baker and Grant Counties.

Union County, 1974. General Highway Map (paper black and white 1972 aerial photograph showing drainage ways and ponds).

USDA Forest Service, La Grande Ranger District, (541) 963-7186: Mark Penninger, Fisheries and Wildlife Biologist.

USDA Forest Service, 1988. *Range Plant Handbook*. Dover Publications, Inc., New York.

USDA SCS, 1985. *Soil Survey of Union County Area, Oregon*. United States Department of Agriculture Soil Conservation Service in cooperation with the Oregon Agricultural Experiment Station.

USDA SCS, 1989. *Hydric Soils in Union County Area, Oregon (Soils with Hydric Inclusions)*.

USDA Natural Resources Conservation Service, 1995. *Washington and Oregon Conservation Grasses, Wildflowers, Legumes, Trees, and Shrubs*. Prepared by S. Lambert, A. Sassman, and J. Rouse.

USDI Fish and Wildlife Service, 1991. La Grande SE, Oregon National Wetlands Inventory map (color infrared aerial photography 8/81, 1:58,000).

USGS, 1994. La Grande, Oregon 7.5' topographic quadrangle.

WAC, 1985. Black and white aerial photograph, scale 1 inch = 400 feet, 10/4/85 (WAC-85OR).

Walker and Associates, 1994. Color aerial photograph, scale 1 inch = 400 feet, 10/13/94 (594-1008, 3-5, W/O 10572).

APPENDICES

APPENDIX A

WETLAND ASSESSMENT INFORMATION

alphabetized by wet code

WETLAND SUMMARY SHEET

WETLAND: BC-1,-2,-3,-4 **DRAINAGE:** Isolated		**Field Date:** 7/22/95
Location: Boise Cascade Yard		**Observer:** RK
Tax Map:	**Tax Lots:** 100, 200, 202	**Acres:** 1.70
T3S R38E Sect: 5		**On-site:** Yes

General Description: The yard contains several ponds and ditches mostly fed from log watering runoff. All water is dark brown and probably heavy with lignins and tannins. BC-1 is a steep sided ditch containing little emergent vegetation. BC-2 is a log pond with no surrounding vegetation of any kind. BC-3 is a narrow ditch channeling log runoff water. BC-4 is a return/make-up pond for the runoff water. Both BC-3 and BC-4 have a small amount of emergent vegetation.

NWI Classification: 95% OW, 5% EM

Mapped Soils: (36) La Grande silt loam

On-Site Soils: 10YR 3/1 silty clay loam

Hydrologic Source/Comments: Log yard runoff.

Dominant Vegetation (*major dominant):

Herbs

Typha latifolia, OBL
Lactuca serriola, FACU
Melilotus officinalis, FACU
Phleum pratense, FAC-
Phalaris arundinacea, FACW

Shrubs

Trees

Boundary Information: These wet areas are surrounded by the log yard, which mostly contains no vegetation. Not significant wetlands because they were excavated entirely out of uplands.

Wetland Functions: Limited.

Features: None.

Jurisdictional: No

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # BC-1, 2, 3, 4 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: BC-1 County: Union State: OR Date: 7/22/95 Plot: BC1

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Boise-Cascade Yard

Topographic Location: ____

Do Normal Circumstances exist on the site? Y N Explain: ____

Are soils ____ vegetation X hydrology ____ significantly disturbed? N Explain: Extensive disturbance from log yard activities

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Typha latifolia	1	OBL
2. Lactuca serriola	3	FAC-
3. Melilotus officinale	5	FACU
4. Phleum pratense	3	FACU
5. Phalarus arundinacea	5	FACW
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: ____

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 40% = ____

Hydrophytic Vegetation Criterion Met? (YES) NO

Based on surrounding similar sites, vegetation prior to disturbance was probably hydrophytic.

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10"	B	10YR 3/1	-	Clay/silt Loam

___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: Cobbles throughout

Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: ~30" Depth to saturation: - Depth to free water: -

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

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

Comments: Steep-sided ditch to channel log runoff water. ~8' wide

Determined by: Randy Krichbaum *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: BT-1 **DRAINAGE:** Big Taylor Creek (Pond)	**Field Date:** 7/21/95
Location: South of Highland Drive	**Observer:** CG/CMW/RK
Tax Map: _ **Tax Lot:** _	**Acres:** .67
T3S R38E Sect: 17AC, Tax Lots 9400, 9500 and 9600	**On-site:** No

General Description: BT-1 is a man-made pond located on Big Taylor Creek, with an outlet control structureand a dock. It appears to be shallow (up to 2 feet deep) but algae conceals the bottom. There is practically no emergent vegetation. Pond banks are steep and typically grassy. A few trees are scattered on pond margins and they provide very limited shade, food and cover. The surrounding uplands are typically mowed lawns.

NWI Classification: 100% OW

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: No access

Hydrologic Source/Comments: Surface runoff, groundwater

Dominant Vegetation (*major dominant):

Herbs
Typha latifolia, OBL

Shrubs

Trees
Populus tremuloides [*tremula*], FAC+

Boundary Information: Distinct topographic break, limited emergent vegetation (2 small clumps of broad-leaf cat-tail); upland vegetation includes Russian olive, mowed grass, and timothy. Big Taylor, Little Taylor, and Sunnyhills Park were evaluated as one wetland unit because of their connectivity. The complex meets the significance criteria based on hydrologic control and water quality improvement functions.

Wetland Functions: Hydrologic control, water quality. Recreational and aesthetic values.

Features:

Jurisdictional: Yes, excavated in natural waterway.

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # BT-1, BT-2, &LT-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, __X__ *intact* water quality, or __X__ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

D 1-2

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Big Taylor Pond County: Union State: OR Date: 7/21/95 Plot: OBS
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: Looking S from Highland Dr TO Pond
Topographic Location:
Do Normal Circumstances exist on the site? Y N Explain:
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:_____		
1. few emergents		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:_____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:_____		
1.		
2.		
3. ELAN → PYMA		

officinalis

Remarks: Around edge trace TYLA, POTRE, ELAN, olive, Appb, PHPR, Melilotus, AGRSPR
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):_____ = _____
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name:_____ Matches Profile? Y N
Taxonomy:_____ Drainage Class:_____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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 - off-site
Hydric Soil Criterion / Indicators Met? YES NO

HYDROLOGY

150' x 150' Circular Pond
Depth of inundation: 6"-24"? + Depth to saturation:_____ Depth to free water:_____

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: Water control structure outfall	
___Sediment Deposits	Remarks: Was told inflow via 12" pipe	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO POND prob. not regulated
Comments:_____
Determined by: CMW/CG w/Amy Brought

Fishman Environmental Services

Wetland Assessment - City of La Grande, Oregon

Wetland BT-1, -2 +LT-1

Field Date 7/21/95

Big Taylor + Little Taylor Creeks (+ pond)

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
Other			

17 What is the wetland acreage?

= ~1.8 ac

~0.67 ac pond (BT-1)
+ 1700' LT - 25' wid = 0.98 ac
+ 600' BT-2 - 10' wid = 0.14 ac
diversion channel not included in area calculation

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
b			

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	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		

all

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
Other			

Wetland Habitat

1.8 ac total: 0.67 ac OW BT-1; .07 ac EM BT-2; .88 ac EM LT-1; .07 ac SS BT-2; .12 ac FO LT-1

BT-1 100% OW
BT-2 50% EM / 50% SS
LT-1 90% EM / 10% FO

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			37 % OW (BT-1)	
Emergent		53% EM BT-2+LT-1		
Scrub-shrub				(4% SS BT-2)
Forested				(6% FO LT-1)

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 (EM)	c. open water (OW)
b			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
c			

25 Rural: 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%
c			

26 Urban: 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%
c			

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			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
c				

~ 0.67 acre BT-1

*bet. = between (bold questions = field)

Wetland BT-1, -2 + LT-1

Fisheries Habitat

29 What fish species are present at some time during the year? Stream, lake or pond?

b?	a. salmon, trout or sensitive species	b. other fish species Suckers?	c. no species at any time during the year

Streams (associated with the wetland) fish jumped in pond

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

b or c	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

c	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains submerged logs, floating submerged vegetation, large rocks or boulders?

c	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water?

a(+b)	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season? flash flooding

a	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow

@ BT-1 = gated control structure

39 If the primary source of water is surface flow, is the inflow restricted?

a	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

diversion channel connects BT to LT

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

b?	a. no	b. yes	diversion channel

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

b	a. yes	b. no

43 Is there existing physical public access to other habitats listed in question 42?

c	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 from the site	c. observation of other features can't be made from the site

Wetland BT-1, -2 + LT-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

a	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed? car access

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

- except floodway - is that private too? ↓ no that is water of the state.... open -

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

b	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe) not public, just roadway	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

? b ?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

Aesthetics

Rural: what is the extent of visual contrast with the surrounding landscape?

b or a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

b	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? grass clippings in floodway channel

a	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

a	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

b	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

b	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland BT-1, -2 + LT-1 Big Taylor + Little Taylor Creeks + Big Taylor Pond

Wildlife Habitat

1	a	
2	b	
3	c	
4	b	
5	a	
6	a	
7	a	
8	c	
9	c	

DEGRADED

Fish Habitat

Streams and Rivers

1		
2		
3		
4		
5		
6		

Lakes and Ponds

1	b or c	
2	c	
3	c	
4	a	
5	c	
6	b?	suckers? (saw fish jump)

DEGRADED

Water Quality (pollutant removal)

1	a (+b)	
2	a	
(3)	c	53% veg cover - very close to 60% cut off - prob. fair to round up
4	b	
5	a	
6	c	

DEGRADED but close to intact

→ if % veg > 60% (#3) then INTACT

Hydrologic Control (flood control & water supply)

1	a	all in FP
2	a	
3	b	
4	b	
5	b	
6	a	
7	a	

INTACT

- Area floods - does this make sense?

Sensitivity to Impact

1	a?	diversion channel, into itself?
2	a	
(3)	c	(no data on WQ)
4	a	
5	a	
6	b	

POT SENS unless delete #3, upstream WQ OK, then SENSITIVE

Enhancement Potential

1	a	
2	a (+c)	
3	a	
4	b	
5	c	
6	b	(or c) if SI changes

HIGH

Education

1	b	
2	a	
3	b	
4	c	
5	b	
6	a	

HAS

Recreation

1	b	
2	c	
3	c	
4	b	
5	b??	no fishing allowed?
6	b	

POTENTIAL

(close to NOT APPROPRIATE)

Aesthetic Quality

1	b	
2	b	
3	b	grass clippings in FW channel loading
4	b	
5	a	
6	a	

POTENTIALLY PLEASING

Should we rank BT + LT separately?

City of La Grande Wetland Assessment Summary Sheet

Wetland: BT-1, BT-2 and LT-1 Big Taylor and Little Taylor Creeks and Big Taylor Pond			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: BT-2 **DRAINAGE:** Big Taylor Creek **Field Date:** 7/21/95

Location: North of Highland Road **Observer:** RK

Tax Map: _ **Tax Lot:** _ **Acres:** .14
T3S R38E Sect: 17AC, Tax Lots 3100, 4200, 4300, 4400, 4500, 4600, 4700, 4800, 4900, 5000, 5100 and 5200 **On-site:** No

General Description: Small perennial creek approximately 12 inches wide and 8 inches deep downstream from Big Taylor Pond (BT-1). It is bounded on both sides by single family residences. The narrow riparian corridor is dominated by black hawthorn and black cottonwood. The creek is piped under residential development further downstream.

NWI Classification: 50% EM, 50% SS

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: No access

Hydrologic Source/Comments: Surface water drainage; Big Taylor Creek. Pond above has a controllable outlet which feeds the creek.

Dominant Vegetation (*major dominant):

Herbs
Dipsacus sylvestris, FAC
Epilobium watsonii [*ciliatum*], FACW-
Rumex crispus, FAC+
Agropyron intermedium, NOL

Shrubs
Ribes aureum, FAC+
Crataegus douglasii, FAC
Symphoricarpos albus, FACU

Trees
Populus trichocarpa [*balsamifera*], FAC

Boundary Information: Distinct topographic break; vegetation changes to landscaped residential backyards. Big Taylor, Little Taylor, and Sunnyhills Park were evaluated as one wetland unit because of their connectivity. The complex meets the significance criteria based on hydrologic control and water quality improvement functions.

Wetland Functions: water quality & hydrologic control; limited wildlife habitat in narrow corridor through residential development.

Features: Local neighborhood aesthetics.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # BT-1, BT-2, &LT-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, __X__ *intact* water quality, or __X__ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: BT-2 County: Union State: OR Date: 7/21/95 Plot: BT-2
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Big Taylor Creek N. of Highland Rd.
Topographic Location: Creek bottom
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Dipsacus Sylvestris		FAC
2. Ribes aureum		FAC+
3. Epilobium watsonii		FACW-
4. Agropyron intermedium		UPL
5. Rumex crispus		FAC+
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. Crataegus douglasii		FAC
2. Symphoricarpos albus		FACU
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1. Populus trichocarpa		FAC
2.		
3.		

Remarks: ____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 6/8 = 75%
Hydrophytic Vegetation Criterion Met? (YES) NO
UPLAND; Landscaped yards/Horticultural species

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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 access - Not sampled
Hydric Soil Criterion / Indicators Met? YES NO ?

HYDROLOGY

Depth of inundation: 2-5" Depth to saturation: ~ Depth to free water: ~

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
X Water Marks	Recorded Data Available (aerials, gauge) ? - Explain: ____	
___Drift Lines	Other: width of channel ~12", Depth ~4"	
___Sediment Deposits	Remarks: Per. Creek	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? YES NO
Comments: Based on similar surrounding areas hydric soils are probably present at this site
Determined by: Randy Kvichbaum *Fishman Environmental Services*

City of La Grande Wetland Assessment Summary Sheet

Wetland: BT-1, BT-2 and LT-1 Big Taylor and Little Taylor Creeks and Big Taylor Pond			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentialy Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: LT-1	**DRAINAGE:** Little Taylor Creek	**Field Date:** 7/21/95
Location: North of Jupiter Way		**Observer:** CMW
Tax Map: _	**Tax Lot:** _	**Acres:** _____
T3S R38E Sect: 17 **Quarter:** NE		**On-site:** Yes

General Description: Little Taylor Creek is a straight floodway channel corridor surrounded by residences. Channel is wide, approximately 25 feet, with mostly gradual slope. Some shade from "riparian" vegetation: sumac, lilac, Lombardy poplar.

NWI Classification: 90% EM, 10% FO

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: 10YR 2/1 clay

Hydrologic Source/Comments: Intermittent stream, very low flow of 1/2 inch today; three 36 inch culverts in place to handle flash floods. Receives water from Little Taylor Creek and from the diversion of Big Taylor Creek up above the housing development (Sunny Hills).

Dominant Vegetation (*major dominant):

Herbs
Alopecurus geniculatus, OBL
Alopecurus pratensis, FACW
Carex species
Festuca arundinacea, FAC-
Dipsacus sylvestris, FAC
Phleum pratense, FAC-
Lolium perenne, FACU
Epilobium species

Shrubs

Trees
Populus nigra var. *italica*, NOL

Boundary Information: Gradual slope; vegetation changes to bachelor's button, willow lettuce, ornamental rose and western sumac.

Wetland Functions: Low wildlife habitat and fish habitat.

Features: Could put trail in bottom.

Jurisdictional: Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Little Taylor Ck. County: Union State: OR Date: 7/21/95 Plot: LT-1

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Jupiter Way - both S + N sides

Topographic Location: ____

Do Normal Circumstances exist on the site? 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: ____			**Shrub/Sapling** Stratum - % total cover: ____		
1. Festuca arundinacea (S side)		FAC-	1.		
2. Dipsacus sylvestris (S side)		FAC	2.		
3. Phleum pratense (S side		FAC-	3.		
4. Carex sp.		FAC/wetter	4.		
5. Poa sp. prob. pratensis		FAC	5.		
6. Alopecurus geniculatus		OBL	Tree Stratum - % total cover: ____		
7. Alopecurus pratensis		FACW	1.		
8. Lolium perenne		FACU	2.		
9. Epilobium sp. few			3.		

Remarks: Some ornamentals on slopes, Populus nigra var. italica

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 5/8 = 63%

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL: Centaurea cyanus, Lactuca serriola, Orn. Rose, Rhus glabra

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-6		10YR 2/1		clay
				some rock

___ Histosol ___ Reducing Conditions (test) ___ Hi. Organic Cont. Surf. Layer

___ Histic Epipedon X Gleyed low chroma ___ 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: 1/2" water Depth to saturation: Sat 0-6" Depth to free water: ____

1° Indicators	2° Indicators	2° Indicators
X 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: 3 36" concreted metal culverts, connected	
___ Sediment Deposits	Remarks: Flat channel, gradual banks	
___ Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

~20-25' wide, ~5-10' deep

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

Comments: Also int. stream

Determined by: CMW

Fishman Environmental Services

City of La Grande Wetland Assessment Summary Sheet

Wetland: BT-1, BT-2 and LT-1 Big Taylor and Little Taylor Creeks and Big Taylor Pond			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: DC-1 **DRAINAGE:** Deal Canyon **Field Date:** 7/20/95

Location: Aspen Drive **Observer:** CG/CMW

Tax Map: **Acres:** N/A
T3S R38E Sect: 7AB, **Tax Lots:** 2800, 2900, 2901, 3000, 3100, 3101, 8100, 8200, 8500
Sect: 7BA, Tax Lots: 701, 800, 1200, 1201 **On-site:** Yes

General Description: DC-1 is an intermittent drainage located at the north end of Aspen Drive. There was no water during the field survey. There are two forks: the channel of the south fork is approximately 10 feet wide and 6 feet in depth. The north fork is 3 feet wide and 1 foot deep. Both channels are rock bottomed. Steep hillslopes are vegetated with shrubs on the south and weedy grasses and forbs on the north. The north fork is located in the backyards of residences.

NWI Classification: 60% EM, 40% SS

Mapped Soils: (64) Urban land - Ramo Complex, 2-15% slopes

On-Site Soils: Rocky

Hydrologic Source/Comments: Surface water runoff - intermittent stream.

Dominant Vegetation (*major dominant):

Herbs
**Alopecurus pratensis*, FACW
**Solanum dulcamara*, FAC+
Phleum pratense, FAC-
Dipsacus sylvestris, FAC
Dactylis glomerata, FACU

Shrubs
**Cornus stolonifera*, FACW
**Physocarpus malvaceus*, NOL
**Salix* species, FAC or wetter
**Acer negundo*, FAC+

Trees

Boundary Information: Distinct topographic break. Vegetation changes to common vetch, quack grass, timothy, yellow salsify, and Wood's rose. Not a significant wetland, rather an intermittent stream.

Wetland Functions: Limited; surface water runoff, no fishery connection

Features: None.

Jurisdictional: No

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Deal Ck SOUTH M.Fk County: Union State: OR Date: 7/20/95 Plot: DC-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: DC-1 N on Aspen Dr, N of M Avenue
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Alopecurus pratensis	10	FACW
2. Solanum dulcamara	10	FAC+
3. Phleum pratense	5	FAC-
4. Dactylis glomerata	5	FACU
5. Dipsacus sylvestris	5	FAC
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. Physocarpus malvaceus	10	NOL
2. Cornus stolonifera	10	FACW
3. Salix sp.	10	FAC/wetter
4. Acer negundo	10	FAC+
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: 60% EM / 40% SS ; lots of Bare Rock
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 6/9 = 67%
Hydrophytic Vegetation Criterion Met? (YES) NO
UPL : TO SOUTH : Phleum pratense, Agropyron repens, Vicia Sativa, Tragopogon dubius, Rosa woodsii, trace poa sp.

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
				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: ROCKY
Hydric Soil Criterion / Indicators Met? YES (NO)

HYDROLOGY

(DRY)
Depth of inundation: ____ Depth to saturation: ____ Depth to free water: ____

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)	

channel 10' wide, 6' deep

DETERMINATION: Is this plot a Wetland? YES (NO) because of hydrology, soils
Comments: Intermittent Stream
Determined by: CG + CMW *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: GLD-1 **DRAINAGE:** Gekeler Lane Ditch (Taylor Creek)	**Field Date:** 7/21/95
Location: Along Gekeler Lane from Taylor creek to Hwy 30.	**Observer:** CG/RK
Tax Map: _ **Tax Lot:** _	**Acres:** .54
T3S R38E Sect: 16, Tax Lots 690, 691, 700, 800, 900	
Sect: 17AA, Tax Lots 100, 101, 102, 400, 502, 700, 800, 900, 1000, 1100	**On-site:** Yes

General Description: GLD-1 is Gekeler Lane ditch located south of Gekeler Lane. Big and Little Taylor Creeks merge into the ditch west of 18th Street. The channel and emergent areas are typically approximately 3-5 feet wide with steep vegetated banks. Vegetation is dominated by herbaceous plants including reed canarygrass, curly dock, and water cress.

NWI Classification: 100% EM

Mapped Soils: (36) La Grande silt loam

On-Site Soils: 10YR 3/1 silty clay loam

Hydrologic Source/Comments: Surface water runoff from Big and Little Taylor Creeks and possibly Spence Reservoir (Davidson Lake); drainage ditch: channel is 3 feet wide, 3 feet deep, water approximately 8-10 inches deep.

Dominant Vegetation (*major dominant):

Herbs

* *Phalaris arundinacea*, FACW
* *Rumex crispus*, FAC+
* *Rorippa nasturtium-aquaticum* [*Nasturtium officinale*], OBL

Polygonum persicaria, FACW
Eleocharis palustris, OBL
Phleum pratense, FAC-
Typha latifolia, OBL
Alisma plantago-aquatica, OBL
Dipsacus sylvestris, FAC
Agropyron repens, FAC-

Shrubs

Trees

Boundary Information: Distinct topographic break. Vegetation changes to quack grass, teasel, vetch, Canada thistle, and scotch thistle. Meets criteria for significant wetland because it has moderate water quality improvement function and feeds into Gekeler slough, a water quality limited stream.

Wetland Functions: moderate, could be enhanced.

Features: None.
Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # GLD-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
X*		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

Lane

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Gekeler Ditch County: Union State: OR Date: 7/21/95 Plot: GLD-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: S. of sub-station
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 50%		
*1. PHAR	35	FACW
*2. RUCR	10	FAC+
3. DISY	3	FAC
4. AGRE	1	FAC-
5. ALPL	1	OBL
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. (Phalaris arundinacea)		
2. (Rumex crispus)		
3. (Dipsacus sylvestris)		
4. (Agropyron repens)		
5. (Alysma plantago-aquatica)		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: Reed canary grass, Curly dock, teasel, quackgrass, Am. water plantain
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-10"		10YR 3/1	10YR 4/2 20% Fine	SiCL

___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: ≈ 8" Depth to saturation: — Depth to free water: —

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: CG, RK (Christie Galen, Randall Krichbaum) *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland GLD - 1
Gekeler Lane Ditch
Field Date 7/21/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture		b. 40% Ag	
Forest			
Developed			c. 60% developed
Other			

From Birnie Park to 12th + 16th to Hwy 30
150' + 50 dev/50 ag
800' + 100 dev
3800' 50 dev/50 ag
4750'

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			c. AG
Forest			
Developed	a. RES		
Other			

17 What is the wetland acreage?

c	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

x 3-5' wide = 0.32 - 0.54 acres

18 How is wetland connected to stream, lake, or pond?

a	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

- culvert Big Taylor Pond, upstream

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

a	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%
Open Space			
Agriculture			
Forest			
Developed			100% RES
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				
Emergent	100%			
Scrub-shrub				
Forested				

22 How many wetland plant species are present (urban areas)?

a	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

b	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

c	a. high	b. moderate	c. low

25 Rural: What percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

c	a. >40%	b. bet. 10% & 40%	c. <10%

26 Urban: What percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

c	a. >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

a	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

Estimate area of unvegetated open water within the wetland.

d	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat NA

Wetland GLD-1

29 What fish species are present at some time during the year? Stream, lake or pond?

	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

	a. surface flow, including streams and ditches	b. precipitation	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. no	c. unable to determine
b			

steep banks

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
b			

culvert

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. permanent blockage exists and alternative flow channels are not feasible
a			

also Spencer Res runoff, Taylor Creeks

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

	a. no	b. yes
b		

Public Access to Wetland Site

41 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 safety hazards (describe)	c. more than two safety hazards (describe)
b			

busy rd

42 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		

ag land

43 Is there existing physical public access to other habitats listed in question 42?

	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 from the site	c. observation of other features can't be made from the site
b			

just roads not public

Wetland GLD-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers) ok w/ car - no pull-outs

45 Is public access to the wetland allowed?

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

b	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

just roads like 18th St

Recreation

47 Is the wetland accessible by boat?

C	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

C	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

b	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

b	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

b+c	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

(a)	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

b	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)?

b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

b?	a. >50%	b. bet. 25% & 50%	c. <25% linear

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

C	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland GLD-1 Gekeler Lane Ditch

Wildlife Habitat		
1	b	
2	b / c	(some water present)
3	c	
4	c	
5	a	
6	a	
7	a	
8	c	
9	c	
DEGRADED		

Fish Habitat		
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		
Not Applicable		

Water Quality (pollutant removal)		
1	a	
2	b	no evid. of flooding
3	a	
4	b	
5	a	
6	c	
DEGRADED; would be intact if water flooded or ponded –		

Hydrologic Control (flood control & water supply)		
1	a	
2	b	
3	c	
4	b	
5	b	
6	b	
7	a	
DEGRADED		

Sensitivity to Impact		
1	a	
2	b	(yes=a in some areas)
3	c	
4	a	
5	a	
6	b	
potentially sensitive		

Enhancement Potential		
1	a	
2	a	
3	a	
4	c	size
(5)	c	zoning
6	b	
MODERATE unless delete 5 then High		

Education		
1	b	
2	b	
3	b	
4	b	
5	b	
6	b	
potential		

Recreation		
1	b	
2	c	
3	c	
4	b	
5	b	
6	b	
potential		

Aesthetic Quality		
1	c	
2	b	
3	a	
4	b(+c)	
5	b	
6	b	
potentially		

City of La Grande Wetland Assessment Summary Sheet

Wetland: GLD-1 Gekeler Lane Ditch			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality*	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat not applicable for this wetland.
*Water Quality would be intact if flooded or ponded.

WETLAND SUMMARY SHEET

WETLAND: GRD-1 **DRAINAGE:** Grand Ronde Ditch	**Field Date:** 7/22/95
Location: 2nd Avenue (May Lane)	**Observer:** RK
Tax Map: _ **Tax Lot:** _	**Acres:** 1.20
T3S R38E Sect: 4 BC, Tax Lot 1100,	
Sect 5AA, Tax Lot 400, Sect. 5AD, Tax Lot 1800	**On-site:** Yes

General Description: Irrigation ditch running through residential areas, also used for storm drainage. Riparian vegetation is confined to a narrow band (approximately 2 feet) on either side of the 6-foot wide open water. Depth is approximately 2 feet. Small fish noted in ditch. Some larger trees are visible further downstream (box-elder, black cottonwood).

NWI Classification: 85% OW, 15% EM

Mapped Soils: (36) La Grande silt loam

On-Site Soils: 10YR 3/1 clay loam

Hydrologic Source/Comments: Irrigation water diverted from river at Spruce street, also runoff.

Dominant Vegetation (*major dominant):

Herbs

Juncus tenuis, FACW-
Agrostis tenuis, FAC
Rumex crispus, FAC+
Phalaris arundinacea, FACW

Shrubs

Trees

Boundary Information: Upland boundary plants are reed canarygrass, willow lettuce, quack grass, Wood's rose, common mullein, field morning-glory, downy cheat grass, and Canada bentgrass. Not a significant wetland because it is a ditch excavated from uplands.

Wetland Functions: limited.

Features: None.

Jurisdictional: No. Excavated entirely out of uplands.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: GRD-1 County: Union State: OR Date: 7/22/95 Plot: GRD-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Grand Ronde Ditch near 2nd Ave. + May Lane
Topographic Location: Valley Bottom
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Juncus tenuis	5	FACW-
2. Agrostis tenuis	5	FAC
3. Rumex crispus	3	FAC+
4. Phalarus arundinaceae	5	FACW
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: Open Water ~85%
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 100% = ____
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10"	B	10YR 3/1	- - - -	Clay Loam

___ 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 determination based on low matrix chroma
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 24" Depth to saturation: - Depth to free water: ____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___ Oxidized Root Channels in upper 12"	___ Local Soil Survey Data
X Saturated in upper 12"	___ Water-stained leaves	___ FAC-Neutral Test
X Water Marks	Recorded Data Available (aerials, gauge) ? - Explain: ____	
X Drift Lines	Other: ____	
___ Sediment Deposits	Remarks: ____	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Only able to observe ditch at N. end (at UGB)
Determined by: Randy Kriehbaum *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: GRD-2 **DRAINAGE:** Grande Ronde Ditch	**Field Date:** 7/22/95
Location: Northwest of Hwy 84/Hwy 82 (near Boise Cascade yard)	**Observer:** RK
Tax Map: _ **Tax Lot:** _ T3S R38E Sect. 4CC, Tax Lot 500, Sect. 9, Tax Lot 1600, Sect. 9BB, Tax Lot 100, Sect. 9BC, Tax Lot 1600, Sect. 9CB, Tax Lot 1000	**Acres:** N/A **On-site:** Yes

General Description: GRD-2 is an irrigation / stormwater ditch flowing south towards Gekeler Slough. The channel is approximately 6-10 feet wide and water approximately 18-24 inches deep at the time of the survey. Areas of relatively dense shrub and tree cover (sandbar willow, black cottonwood) alternate with more open areas. The ditch meets the Union Pacific Railroad tracks and flows along them and into Gekeler Slough. The section adjacent to the tracks has no trees. Here the riparian vegetation is dominated by reed canarygrass.

NWI Classification: 75% OW, 20% EM, 5% SS

Mapped Soils: (36) La Grande silt loam

On-Site Soils: 10YR 3/1 silty clay loam

Hydrologic Source/Comments: Irrigation water, runoff.

Dominant Vegetation (*major dominant):

Herbs
Carex aquatilis, OBL
Rumex crispus, FAC+
Phalaris arundinacea, FACW

Shrubs
Salix exigua, OBL

Trees
Populus trichocarpa [*balsamifera*], FAC

Boundary Information: Just above the water, vegetation changes to quack grass, Wood's rose, reed canarygrass, teasel, field morning-glory, scotch thistle, and Jim Hill mustard. Not a significant wetland because it is a ditch excavated from uplands.

Wetland Functions: limited.

Features: None.

Jurisdictional: No. Excavated entirely out of uplands.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: GRD-2 County: Union State: OR Date: 7/22/96 Plot: GRD-2

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Grand Ronde Ditch (near Boise-Cascade yard)

Topographic Location: Valley bottom

Do Normal Circumstances exist on the site? 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: ____			**Shrub/Sapling** Stratum - % total cover: ____		
1. Carex aquatalis	5	OBL	1. Salix exigua	10	OBL
2. Rumex crispus	3	FAC+	2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum - % total cover: ____		
7.			1. Populus trichocarpa	10	FAC
8.			2.		
9.			3.		

Remarks: Open Water 75% cover

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 100% = ____

Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10"	B	10YR 3/1	~ ~ ~ ~	Silt/clay Loam

___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: ~18" Depth to saturation: ~ Depth to free water: ~

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
X Water Marks	Recorded Data Available (aerials, gauge) ? - Explain: ____	
X Drift Lines	Other: Flowing ditch	
X Sediment Deposits	Remarks: ____	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

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

Comments: ____

Determined by: Randy Krichbaum *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: GRR-1 **DRAINAGE:** Grande Ronde River	**Field Date:** 7/20/95
Location: Riverside Park (Grande Ronde River)	**Observer:** CG/CMW
Tax Map: **Tax Lot:** _	**Acres:** N/A
T2S, R38E, Sect: See Below	**On-site:** No

General Description: GRR-1 is the Grande Ronde River, with a broad rocky channel and scrub shrub and forested wetland fringe. The riparian canopy provides food and cover for a variety of bird, butterfly, and small wildlife species.

NWI Classification: 100% R

Mapped Soils: (67) Veazie - Voats Complex, protected

On-Site Soils: Riverine; not sampled.

Hydrologic Source/Comments: Grande Ronde River

Dominant Vegetation (*major dominant):

Herbs
Dipsacus sylvestris, FAC
Sisymbrium altissimum, FACU-
Saponaria officinalis, NOL

Shrubs
Salix exigua, OBL
Salix species, FAC or wetter

Trees
Populus trichocarpa [*balsamifera*], FAC

Boundary Information: Distinct topographic break, vegetation changes near top of banks.

Wetland Functions: High wildlife habitat, fish habitat, hydrologic control, aesthetics, education, and recreation values. Wetland significance test is not applicable to rivers.

Wildlife Noted: Birds and insects noted include yellow warbler, northern oriole, American goldfinch, swallowtail butterfly, and numerous other butterflies.

Features: Riverside Park, swimming hole, wildlife-watching, and fishing.

Jurisdictional: Yes, as a water of the State and of the U.S.
Section 31CC, Tax Lots 100, 200 and 300
Section 31CD, Tax Lots 100, 101, 102, 300, 412, 413, 414, 415, 416, 417 and 418
Section 31DC, Tax Lots 100, 400, 500, 3300, 3400, 3800 and 3801
Section 31DD, Tax Lots 100, 400, 500, 600 and 700
Section 32, Tax Lots 5100 and 5200
Section 32CC, Tax Lot 100
Section 32CD, Tax Lots 100, 303, 500, 501, 600 and 700

WETLAND SUMMARY SHEET

WETLAND: GS-1 **DRAINAGE:** Gekeler Slough (Lower Mill Creek)	**Field Date:** 7/21/95
Location: North of Gekeler Slough, north of substation	**Observer:** CG/RK
Tax Map: _ **Tax Lot:** _	**Acres:** .60
T3S R38E Sect: See Below	**On-site:** Yes

General Description: Gekeler Slough is the continuation of Mill Creek, which is piped under the college and surfaces at 16th St. and flows east to Highway 30. There are residences on both sides of the drainage. Pedestrian bridges allow people access to both sides. Golden willow lines portions of the banks.

NWI Classification: 50% EM, 50% FO

Mapped Soils: (36) La Grande silt loam

On-Site Soils: 10YR 2/1 silty clay

Hydrologic Source/Comments: Mill creek, Surface runoff. Channel is approximately 6 feet wide and 7 feet deep. Water depth is approximately 18 inches.

Dominant Vegetation (*major dominant):

Herbs
**Phalaris arundinacea*, FACW

Shrubs
Rosa canina, NOL
Ribes aureum, FAC+
Salix exigua, OBL

Trees
Populus trichocarpa [*balsamifera*], FAC
Alnus sinuata, FACW
Salix alba var. *vitellina*, FACW

Boundary Information: Distinct topographic break; vegetation changes to smooth brome, bachelor's button, quack grass, poison hemlock, Kentucky bluegrass, Canada thistle, alfalfa (in field to the south), teasel, Jim Hill mustard, western tansy mustard, willow lettuce, and cultivated wheat. Meets significance test because of water quality improvement function.

Wetland Functions: Water Quality, some fish and wildlife habitat.

Features: None.

Jurisdictional: Yes
Section 8DA, Tax Lots 1000, 1100, 1800, 2100, 2402, 2601, 2701, 2702, 2800 and 3100
Section 9CC, Tax Lots 101, 210, 202
Section 9CD, Tax Lots 100, 200, 201 and 400

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # GS-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, _x___ *intact* water quality, or ____ *intact* hydrologic control.
X		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Gekeler Slough W County: Union State: OR Date: 7/21/95 Plot: GS-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Gekeler Slough N of substation
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. PHAR		FACW
2. (Phalaris arundinacea)		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. SA EX		OBL
2. (Salix exigua)		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1. SA AL		FACW
2. (Salix alba)		
3.		

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

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-12		10YR 2/1	NONE	S, C

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking LOW CHROMA V
___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: 18" Depth to saturation: ____ Depth to free water: ____

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	

Channel ≈ 3' wide 7' deep

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: CG + RK *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland GS1
W of HWY 30
Field Date 7/21/95
Gekeler Slough

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture		30% AG	
Forest			
Developed			70% Residential
Other			

from 16th Ave to Hwy 30

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			70% AG
Forest			
Developed		30% RES	
Other			

wider

~3800' x 3'
= 11400 ft
= 0.3 ac

17 What is the wetland acreage?

c	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to stream, lake, or pond?

a (Why?)	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

→ Piped mill creek

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

a	a. yes	b. no

yes ?

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
Other			

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)? — May be more EM W of 20th

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water				
Emergent		50% EM probably more		
Scrub-shrub				
Forested		50% FO probably less		

22 How many wetland plant species are present (urban areas)?

b	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

a+b	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

C	a. high	b. moderate	c. low

25 Rural: What percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

skip	a. >40%	b. bet. 10% & 40%	c. <10%

26 Urban: What percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

c. [illegible]	a. >40%	b. bet. 10% & 40%	c. <10%

— ?

27 How is the wetland connected to other wetlands?

a	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

Estimate area of unvegetated open water within the wetland.

d	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat Wetland GS-1

29 What fish species are present at some time during the year? Stream, lake or pond?

borc?	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

a	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps	piped millCreek

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine	(verbal report)

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow	culvert under Hwy 30

39 If the primary source of water is surface flow, is the inflow restricted?

a	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

b	a. no	b. yes	piped

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

b	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)	steep bank

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

a	a. yes	b. no	ag land

43 Is there existing physical public access to other habitats listed in question 42?

b	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 from the site	c. observation of other features can't be made from the site

Wetland GS-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers) - except in trailer park on 20th Ave - can drive

45 Is public access to the wetland allowed?

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

s there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails,
water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

b	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe) just roads	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

C	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

C	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

b ?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

b	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

b+c	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?

b	a. yes	b. no	- ?

54 If the site contains visual detractors, can they be easily removed?

(a)	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a or b	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)?

b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

b	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

b	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland GS-1 Gekeler Slough W of Hwy 30

Wildlife Habitat		
1	a	
2	b	(ditch) (some FOR.)
3	c	
4	c	
5	a b	stream connection.
6	a	
7	a	
8	b c	
9	c	

DEGRADED
provides some habitat

Fish Habitat		
Streams and Rivers		potential fish habitat
1	b	
2	b	
3	c	
4	a	
5	c	
6	b	
Lakes and Ponds		some habitat
1		
2		
3		
4		
5		
6		

NA

Water Quality (pollutant removal)		
1	a	
2	a	
3	a	
4	b	
5	a	
6	c	

INTACT

Hydrologic Control (flood control & water supply)		
1	a	
2	a	
3	c	
4	b	
5	b	(50% a)
6	b	
7	a	

DEGRADED

Sensitivity to Impact		
1	a	
2	b	a in other areas
3	c	a in other areas
4	a	
5	a	
6	b	

potentially sens. to future impacts

Enhancement Potential		
1	a	
2	a	
3	a	
4	c	if only 1 c then high
5	c	
6	b	

MODERATE → HIGH
will always be true - could delete this one

Education		
1	b	
2	b	
3	b	
4	b	
5	b	
6	b	

Has potential for

Recreation		
1	b	
2	c	
3	c	
4	b	
5	b?	
6	b	

Has potential

Aesthetic Quality		
1	b	
2	b	
3	a b	
4	a or b	
5	a or b	
6	b	

potentially pleasing

revised Dfield 5/02

City of La Grande Wetland Assessment Summary Sheet

Wetland: GS-1 Gekeler Slough west of Highway 30			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat not applicable for this wetland.

WETLAND SUMMARY SHEET

WETLAND: GS-2 **DRAINAGE:** Gekeler Slough (Mill Creek)	**Field Date:** 7/22/95
Location: East of Railroad tracks, northeast of Highway 30 / Gekeler Lane	**Observer:** RK
Tax Map: _ **Tax Lot:** 1500	**Acres:** 3.5
T3S R38E Sect: 9 Quarter: SW	**On-site:** Yes

General Description: Gekeler Slough continues into agricultural area east of Highway 30. Channel width is approximately 8 to 10 feet by 2 feet deep. Good shading primarily from golden willow and dense reed canarygrass which lines the waterway.

NWI Classification: 50% EM, 50% FO

Mapped Soils: (8) Catherine silty clay loam (hydric inclusions)

On-Site Soils: 2.5Y 4/1 silty clay

Hydrologic Source/Comments: Mill Creek, surface runoff, irrigation. Receives some water from Grande Ronde Ditch.

Dominant Vegetation (*major dominant):

Herbs
**Phalaris arundinacea*, FACW
Veronica americana, OBL
Rumex crispus, FAC+

Shrubs

Trees
Salix alba var. *vitellina*, FACW

Boundary Information: Upland boundary species are reed canarygrass, Canada thistle, Wood's rose, teasel, common mullein, scotch thistle, and wild oat. Surrounded by agricultural fields. Meets significance test because of water quality and hydrologic control functions.

Wetland Functions: water quality, hydrologic control; some wildlife habitat, some fish habitat.

Features: None.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # GS-2 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, _X___ *intact* water quality, or __X__ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Gekeler SLE County: Union State: OR Date: 7/22/95 Plot: GS-2
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Gekeler Slough E. of RR Tracks
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
* 1. Phalaris arundinacea	50	FACW
2. Veronica americana	5	OBL
3. Rumex crispus	2	FAC+
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
* 1. Salix alba	20	FACW
2.		
3.		

Remarks: Reedcanarygrass, Am. speedwell, Curly dock + Golden willow
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10"	B	2.5Y 4/1	-	Silt/clay

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
X Sulfidic Odor (faint) ___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
Matrix Chroma of 1 w/ faint sulphidic odor

HYDROLOGY

Depth of inundation: 24" Depth to saturation: ~ Depth to free water: ~

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

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: Randall Krichbaum (CRK) *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland GS-2
Gekeler Slough
Field Date 7/21/95
East of Hwy 30

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			100% AG
Forest			
Developed	Trace RES downstream		
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			70% AG
Forest			
Developed		30% RES	
Other			

17 What is the wetland acreage?

b or a	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

~3.5 plus downstrea

18 How is wetland connected to stream, lake, or pond?

a or b	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

(Mill Creek in pipe) plus downstream to Gl

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

b	a. yes	b. no

- apparently HWY 30 keeps 100 YR FP on W. side of Freeway

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES + →
Other			

? what is on E side of UGB?

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)? prob FO dominant

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water				
Emergent		50% EM		
Scrub-shrub				
Forested		50% FO		

22 How many wetland plant species are present (urban areas)?

b	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

a	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

c	a. high	b. moderate	c. low

25 Rural: What percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

c	a. >40%	b. bet. 10% & 40%	c. <10%

26 Urban: What percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

c	a. >40%	b. bet. 10% & 40%	c. <10%

all ~~mowed~~/plowed farmland

27 How is the wetland connected to other wetlands?

a	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

Estimate area of unvegetated open water within the wetland.

d	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat Wetland GS-2

29 What fish species are present at some time during the year? Stream, lake or pond?

~~a~~ C ?	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year	Randy says marginal fish habitat

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

a(+b)	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine	~~ff~~ drift lines

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b?	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	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

b	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water) busy road

b	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent) ag land

a	a. yes	b. no

43 Is there existing physical public access to other habitats listed in question 42?

b	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 from the site	c. observation of other features can't be made from the site

Wetland GS-2

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers) ag land

45 Is public access to the wetland allowed?

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

C	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

C	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

C?	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

Ag field

49 Is fishing allowed at the wetland or adjacent water body?

?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

Aes-thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a+b	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

plowed

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a or b	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 or b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

b	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland GS-2 Gekeler Slough East of Hwy 30

Wildlife Habitat		
1	a	
2	a	
3	c	
4	c	
5	b	
6	a	
7	c	
8	b	
9	c	
	DEGRADED	

Fish Habitat	NA	
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		

Water Quality (pollutant removal)		
1	a (+b)	
2	a	
3	a	
4	(a or) b	
5	b	
6	a	
	INTACT	

Hydrologic Control (flood control & water supply)		
1	b	
2	a	
3	(a or) b	size (a=>5ac)
4	b?	
5	a	
6	b	
7	a	
	INTACT	

16 ~~4~~ use 3a -

Sensitivity to Impact		
1	a	
2	a	
3	a	
4	b	
5	a	RES ZONING
6	a	
	Sensitive	

Enhancement Potential		
1	a	
2	a (+c)	
3	a	
4	a or b	
5	c	
6	c	
	(HIGH) only if delete #5 then Moderate	

Education		
1	b	
2	b	
3	b	
4	b	
5	c	
6	b	
	potential	

Recreation		
1	c	
2	c	
3	c?	
4	b	
5	?	fishing
6	b	
	NOT APPROPRIATE	

Aesthetic Quality		
1	b	
2	a	
3	a	
4	a	
5	a or b	
6	a or b	
	pleasing	

City of La Grande Wetland Assessment Summary Sheet

Wetland: GS-2 Gekeler Slough East of Highway 30			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat not applicable for this wetland.

WETLAND SUMMARY SHEET

WETLAND: GST-1 **DRAINAGE:** Gekeler Slough Tributary	**Field Date:** 7/21/95
Location: South of Gekeler Lane between Foothill Road and Hwy 30	**Observer:** CG/RK
Tax Map: _ **Tax Lot:** _	**Acres:** .40
T3S R38E Sect: 16, Tax Lots 500 and 501	
Sect. 16AD, Tax Lots 100, 101, 200, 300, 500, 600	**On-site:** Yes

General Description: GST-1 is a ditch that drains a small spring located in an agricultural field. It is approximately 2 feet wide and 3-5 feet deep. The bottom of the ditch contains hydric soils and 80% of the area is bare ground. The sparse vegetation includes water plantain and meadow foxtail. The near vertical slopes are vegetated with Canada thistle, scotch thistle, quack grass, and alfalfa.

NWI Classification: 100% EM

Mapped Soils: (8) Catherine silty clay loam (hydric inclusions)

On-Site Soils: 10YR 3/1 clay loam with 10YR 4/3 mottles

Hydrologic Source/Comments: Spring/seasonal surface water; currently dry. Deep ditch drains field, maintained, easement present (from 1897).

Dominant Vegetation (*major dominant):

Herbs

Alisma plantago-aquatica, OBL
Alopecurus pratensis, FACW
Dipsacus sylvestris, FAC
Veronica americana, OBL
Epilobium watsonii [*ciliatum*], FACW-
Agrostis tenuis, FAC
Typha latifolia, OBL

Shrubs

Trees

Boundary Information: Distinct topographic break. Vegetation changes to hay field (mowed). Does not meet significance test because too small to provide notable functions.

Wetland Functions: limited.

Features: None.

Jurisdictional: yes, straightened natural spring slough. Ongoing maintenance exempted.

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # GST-1, 2, & 3 **Locally Significant: No**

*GST-1,2,&3 are very small wetlands, and are unlikely to contribute cool temperatures to Gekeler Slough, which is identified as water quality limited by DEQ because of high summer temperatures.

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
*		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

GST-1

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: GST-1 County: Union State: OR Date: 7/21/95 Plot: ~~FFR~~
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Foothills Ditch
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Alopecurus pratensis	5	FACW
2. Alisma plantago-aquatica	2	OBL
3. Cirsium arvense	2	FACU+
4. Epilobium watsonii	2	FACW-
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: Bare ground 80%
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 100% = ____
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10"	B	10YR 3/1	10YR 4/3 ~20% 1mm -	Clay Loam

___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: Matrix chroma of 1 w/bright mottles
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: - Depth to saturation: - Depth to free water: -

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
X Water Marks	Recorded Data Available (aerials, gauge)? - Explain: ____	
___Drift Lines	Other: ____	
___Sediment Deposits	Remarks: Ditch Channel	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

Evidence of seasonal inundation during growing season

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Currently dry overflow ditch surrounded by upland weeds
Determined by: Randy Krichbaum *Fishman Environmental Services*

East of GST-1

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: E of GST-1 County: Union State: OR Date: _____ Plot: _____
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: E of drainage ditch; clump of willow trees. in Foothills Area.
Topographic Location: _____
Do Normal Circumstances exist on the site? Y N Explain: _____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
*1. Cirsium arvense	50	FACU+
*2. Agropyron repens	20	FAC-
*3. Bromus tectorum	20	NOL
4. Sisymbrium altissimum		FACU-
5. Chenopodium album		FAC
6. Hordeum vulgare		NOL
7. ↳ Barley		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
*. Salix alba var. vitellina		FACW
2.		
3.		

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

SOILS

Mapped unit name: 71 Wingville Silt Loam Matches Profile? Y N
Taxonomy: _____ Drainage Class: _____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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: — Depth to saturation: — Depth to free water: —

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: No indicators	
___Sediment Deposits	Remarks: _____	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments: Not Wet
Determined by: CG *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: GST-2 and GST-3 **DRAINAGE:** Gekeler Slough Tributary	**Field Date:** 7/21/95
Location: South of Gekeler Lane between Foothill Rd and Hwy 30	**Observer:** CG/RK
Tax Map: _ **Tax Lots:** 500 and 501 T3S R38E Sect: 16 Quarter: NE	**Acres:** .13 **On-site:** Yes

General Description: GST-2 and GST-3 are springs/ponds in the middle of a hayfield dominated by a variety of grasses. The field has been cut, making it difficult to identify vegetation. Greener portions of the field in the southeast corner contain pockets of western buttercup, meadow foxtail, slender cinquefoil, and sedge. GST-3 is located on this corner of the field and is a natural "oasis." Vegetation is diverse and supports creeping spikerush, water plaintain, bulrush, downingia, buttercup, and monkey flower. The adjacent field to the south is wheat. GST-2 is a pond/emergent area located on the north end of the field. Vegetation is dominated by broad-leaf cattail, and reed canarygrass. It is surrounded by a mowed field but a strip of unmowed grasses included quack grass, Kentucky bluegrass, and meadow foxtail. Update: Much of the hayfield is now occupied by the County Animal Shelter.

NWI Classification: 100% EM
Mapped Soils: (8) Catherine silty clay loam (hydric inclusions)
On-Site Soils: 10YR 3/1 clay loam with 10YR 4/3 mottles.

Hydrologic Source/Comments: Spring, water was 3 to 4 feet deep.

Dominant Vegetation (*major dominant):

Herbs

**Shrubs*Alisma plantago-aquatica*, OBL*Scirpus validus*, OBL*Alopecurus pratensis*, FACW*Eleocharis palustris*, OBL*Downingia elegans*, OBL*Veronica serpyllifolia*, OBL (?)*Beckmannia syzigachne*, OBL*Ranunculus occidentalis*, FAC*Lemna minor*, OBL*Polygonum persicaria*, FACW*Mimulus guttatus*, OBL

Trees

Boundary Information: Distinct topographic break (debris pile surrounds ponds); vegetation changes to mowed hay field. Does not meet significance test because too small to provide notable functions.

Wetland Functions: limited, but potential amphibian breeding habitat

Features: GST-3 is unique spring; vegetation is dominated by native species.
Jurisdictional: Yes; and note that NRCS has determined that the field surrounding GST-2 and GST-3 is prior converted cropland and not wetland.

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # GST-1, 2, & 3 **Locally Significant: No**

*GST-1,2,&3 are very small wetlands, and are unlikely to contribute cool temperatures to Gekeler Slough, which is identified as water quality limited by DEQ because of high summer temperatures.

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
*		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

GST-3

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Spring GST-3 County: Union State: OR Date: 7/26/95 Plot: ~~GST-3~~

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Foothills Ditch Area (drainage of field is trib. to Gekeler Slough

Topographic Location: ____

Do Normal Circumstances exist on the site? Y N Explain: ____

Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Scirpus validus	10	OBL
2. Alysma plantago aquatica	15	OBL
3. Eleocharis palustris	5	OBL
4. Lemna minor	5	OBL
5. Mimulus guttatus	3	OBL
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: Softstem bulrush, Am. waterplantain, Creeping spikerush, duckweed, Monkey-flower

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 100% = ____

Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10"	B	10YR 3/1	10YR 4/3 40% 1mm -	Clay Loam

___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) X On Hydric Soils List

Remarks: ____

Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: ~32" Depth to saturation: - Depth to free water: -

1° Indicators	2° Indicators	2° Indicators
X 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: Randy Kriebaum *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland GST 2+3
Gekeler Slough Trib
Field Date 7/21/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			100% AG
Forest			
Developed			
Other			

Spring areas in Ag field

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			100% AG
Forest			
Developed			
Other			

USFS?
Fed bldng-?
downstream
~1200 feet
→ 103?

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
C			

0.3 acres potentially >3ac @ GST-3

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
both?			

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
a		

GST 3 60'x2 → 3600 ft
GST 2 70x30 → 2100 ft

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
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				
Emergent	100% EM			
Scrub-shrub				
Forested				

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 (EM)	c. open water (OW)
b			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
c			

25 Rural: 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%
c			

26 Urban: 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%
c			

> plowed Ag land (mowed Hayfield)

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			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
d				

*bet. = between (bold questions = field)

Fisheries Habitat Wetland GST-2 + -3

29 What fish species are present at some time during the year? Stream, lake or pond?

C	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?

(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

C	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

b	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b+a	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. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

—	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

a	a. yes	b. no

AG LAND

43 Is there existing physical public access to other habitats listed in question 42?

b	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 from the site	c. observation of other features can't be made from the site

could be created...

Wetland GS1-2 + -3

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers) AG Land

45 Is public access to the wetland allowed?

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

c	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

could create trails

49 Is fishing allowed at the wetland or adjacent water body?

b	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

Aesthetics

Rural: what is the extent of visual contrast with the surrounding landscape?

b ? o	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

b	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

ag

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

c	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland GST2+3 Gekeler Slough Tribs - Springs in Ag Field

Wildlife Habitat		
1	b	
2	b	spring
3	c	
4	c	
5	b	
6	a	
7	a	
8	b	
9	c	
Degraded		

Fish Habitat	NA	
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		

Water Quality (pollutant removal)		
1	c	
2	b	
3	a	
4	c	
5	b	
6	c	
Degraded		

Hydrologic Control (flood control & water supply)		
1	a	
2	b	
3	c	
4	a b	
5	b	
6	b	
7	b	
Degraded		

Sensitivity to Impact		
1	b	NA - No stream
2	b	NA
3	c	
4	b	
5	a	
6	b	
Potentially Sensitive unless delete #5 developed then Not sens.		

Enhancement Potential		
1	a	
2	b	
3	a	NA
4	c	
5	c	
6	b	
Moderate unless delete #5 then High		

Education		
1	b	
2	a	
3	b	
4	b	
5	c	
6	b	
Has Education Potential		

Recreation		
1	c	
2	c	
3	c	
4	b	
5	b	
6	b	
Not Appropriate		

Aesthetic Quality		
1	c	
2	a	
3	a	
4	b	
5	a	
6	a	
Pleasing		

City of La Grande Wetland Assessment Summary Sheet

Wetland: GST-2 and GST-3 Gekeler Slough Tributaries - Springs in Agricultural Field			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat not applicable for this wetland.

WETLAND SUMMARY SHEET

WETLAND: HP-1 **DRAINAGE:** Mill Creek	**Field Date:** 10/27/95
Location: "Hoffman Park Pond" North of Miller Drive	**Observer:** CMW/DF
Tax Map: _ **Tax Lot:** _	**Acres:** 1.30
T3S R38E Sect: 7DD, Tax Lot 4009	**On-site:** Yes

General Description: HP-1 is a large pond with moderately steep and gently sloping banks. Emergent vegetation is limited where the banks are moderately steep and includes mowed grasses and sedges. Emergent vegetation in other areas includes smartweed, wapato, bulrush, and spikerush. The pond is located south of a few residences and north of an old apple orchard. Trees are approximately 60 years old. The pond is isolated (not contiguous to Mill Creek or other drainage ways).

NWI Classification: 80% OW, 20% EM

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: 10YR 3/1 over 10YR 5/2 silt with 10YR 3/1 mottles

Hydrologic Source/Comments: Springfed (?). Mr. Hoffman reports that the pond is fed by the canyon on the east, via a 10 inch metal pipe. Depth ranges from 8 - 12 feet to 5 feet to shallow (8 recent years of drought); he can pump in groundwater.

Dominant Vegetation (*major dominant):

Herbs
Eleocharis palustris, OBL
Poa compressa, FACU+
Alisma plantago-aquatica, OBL
Salix lasiandra, FACW+
Scirpus validus, OBL
Phalaris arundinacea, FACW
Carex athrostachya, FACW

Shrubs
Salix exigua, OBL

Trees
Salix alba var. *vitellina*, FACW

Boundary Information: Distinct topographic break, vegetation changes to orchard grass, cultivated apple, golden willow, quack grass, tall fescue, chicory, orchard grass, and dandelion. Meets significance test because of hydrologic control function.

Wetland Functions: Hydrologic control (storm detention) and medium wildlife habitat: permanent water with tree canopy.

Features: No bullfrogs observed. Nest boxes (swallows) and goose platform present. Spotted sandpiper observed from off-site in July.

Jurisdictional: Yes if springfed, or over 1 acre in size.

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # HP-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or _X_ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Fishman Park-DOG County: Union State: OR Date: 7/22/95 Plot: HP-1

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: S of pond Pond is S of Mill Ck, N of Miller Dr,

Topographic Location: East of 2nd St

Do Normal Circumstances exist on the site? Y N Explain: ____

Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. ELPA (Eleocharis palustris)		OBL
2. ALPE (Alopecurus pratensis)		FACW
3. SALA (Sagittaria latifolia)		OBL
4. Polygonum sp.		?
5. Carex athrostachya		FACW
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. Salix alba		FACW
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1. Salix alba vitelina (gad)		FACW
2.		
3.		

Remarks: 80% POW/20% PEM Far End / trace scirpus.

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 6 or 7/7 = 100% or so

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL: DAGL * other pasture grasses, TAOF

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-4		10YR3/1		
4-6		10YR5/2	10YR3/1	SILT

___ 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: @ W end Note - diff. soil here (at west end)

Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY fairly deep

Depth of inundation: ____ Depth to saturation: surface Depth to free water: ____

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: ____	
X Drift Lines = 4 ft	Other: Fish	
___ Sediment Deposits	Remarks: ____	
___ Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

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

Comments: ____

Determined by: CMW + DF

Fishman Environmental Services

Wetland Assessment - City of La Grande, Oregon

Wetland HY-1 ~~MP-1~~ ~~"Miller"~~ Pond
Field Date ~~10/22~~/95
"Hoffman park pond"

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture		40% AG + OS	
Forest			
Developed			60% RES
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland? ← may not be connected

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
Other			

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
b			

~1.3 ac

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
b			

- ?

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%
Open Space			
Agriculture			
Forest			
Developed			100% Res
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	80% OW			
Emergent			20% EM	
Scrub-shrub				
Forested				

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 (EM)	c. open water (OW)
b c			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
c			

25 Rural: 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 Urban: 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
b			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
b				

~1.04 ac OW

*bet. = between (bold questions = field)

Fisheries Habitat Wetland AP-1

29 What fish species are present at some time during the year? Stream, lake or pond?

?a or b	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

a	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

c	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains submerged logs, floating submerged vegetation, large rocks or boulders?

c	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water?

c ?	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps	unk?

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine	4' drift lines

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

N/A a	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. permanent blockage exists and alternative flow channels are not feasible	(a)

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

—	a. no	b. yes	(a)

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

b or a	a. yes	b. no	- hillslope to S.

43 Is there existing physical public access to other habitats listed in question 42?

a	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 from the site	c. observation of other features can't be made from the site

Wetland MP-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

a	a. no	b. yes	(list physical barriers) mowed grass, bumpy?

45 Is public access to the wetland allowed?

either b or c	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

's there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

b	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Miller Drive

Recreation

47 Is the wetland accessible by boat?

c (b)	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

Could launch boat on pond

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

b	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

a ?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

b	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland HP-1 "~~Miller~~" Pond
"Hoffman Park Pond"

Wildlife Habitat		
1	a	
2	b	
3	c	
4	b	
5	b	? how connected?
6	b	
7	a	
8	c	(40% a+b)
9	a	
	DEGRADED	

Fish Habitat		
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1	a	
2	c	
3	c	
4	a	
5	c	
6	a or b?	fish present?
	DEGRADED	

Water Quality (pollutant removal)		
1	c?	1° source of water?
2	a	
3	c	
4	b	
5	a	
6	c	
	DEGRADED	

Hydrologic Control (flood control & water supply)		
1	a	
2	a	
3	b	
4	a	check outflow -?
5	c	
6	a	
7	a	
	INTACT	

Sensitivity to Impact		
1	a	(Really Not Applicable)
2	b	
3	c	
4	a	
5	a	
6	c	
	potentially sens.	

Enhancement Potential		
1	a	
2	b?	
3	a	(Really Not Applicable)
4	b	
5	c	
6	b	
	HIGH (higher than rest)	

Education		
1	b or c	
2	a	
3	b	
4	a	
5	b	
6	a	
	HAS unless 1 = c	

Must check!

Recreation		
1	b	
2	(b) or c	
3	b	
4	b	
5	a?	? fishing allowed?
6	b	
	POTENTIAL	

Aesthetic Quality		
1	b	
2	a	
3	a	
4	a	
5	a	
6	a	
	PLEASING	

City of La Grande Wetland Assessment Summary Sheet

Wetland: HP-1 "Hoffman Park Pond"			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: IC-1 **DRAINAGE:** Irrigation Canal Co. Ditch	**Field Date:** 7/20/95
Location: From Grande Ronde River to Pioneer Park	**Observer:** CG/CMW
Tax Map: _ **Tax Lots:** 400 and 500	**Acres:** N/A
T3S R38E Sect: 6 Quarter: NE	**On-site:** Yes

General Description: IC-1 includes a runoff ditch and irrigation canal located north of Pioneer Park. Water is stagnant in the ditch which is 10-15 feet wide. The canal is approximately 5-10 feet wide. The ditch supports reed canarygrass. The irrigation canal is lined with chokecherry, rose, snowberry, and box-elder. Both areas are artificially created in an upland setting.

NWI Classification: 35% EM, 65% FO

Mapped Soils: (67) Veazie - Voats Complex, protected

On-Site Soils: 10YR 2/1 gravelly silt

Hydrologic Source/Comments: Culvert and irrigation canal (Grande Ronde River); gravity flow.

Dominant Vegetation (*major dominant):

Herbs
**Phalaris arundinacea*, FACW
Polygonum persicaria, FACW
Convolvulus [*Calystegia*] *sepium*, FAC
Dipsacus sylvestris, FAC
Lolium perenne, FACU

Shrubs
Rosa woodsii, FACU

Trees
Prunus virginiana, FACU
Sambucus cerulea, FACU
Acer negundo, FAC+

Boundary Information: Distinct topographic break; vegetation changes to blue elderberry, rose, chokecherry, snowberry, scotch thistle, Canada thistle, alfalfa, salsify, batchelor's button, and grass. Not a significant wetland because excavated entirely from uplands.

Wetland Functions: Limited; irrigation and runoff conveyance.

Features: Pioneer Park. Meadow to north between site and railroad tracks could be suitable for wetland mitigation (might be water-quality limited).

Jurisdictional: No.

Note: The wetland within Pioneer Park has been filled since the original survey was conducted.

it was non-jurisdictional

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # IC-1, 2, &3 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; X (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Pioneer Park County: Union State: OR Date: 7/20 Plot: IC-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: S of Ditch Culvert just W prior to confluence w/ Irr Canal Co Ditch
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. PHAR (Phalaris arundinacea)	70	FACW
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: 20		
1. ~~Unidentified~~ Box-elder (ACNE) (Acer negundo)		FAC+
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: 10		
1. ~~Unidentified~~ Box-elder (ACNE) (Acer negundo)		FAC+
2.		
3.		

Remarks: Shrub + Tree rooted higher; Reed canarygrass & box-elder
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO
~~WETLAND NOT MET~~

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
2"		10YR 3/1		gravelly silt

___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 on South
Hydric Soil Criterion / Indicators Met? YES NO

HYDROLOGY

Depth of inundation: 6-12" South 12-24" NF (North Fork) Depth to saturation: ____ Depth to free water: ____

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: 10'-15' wide S. fork, 5-(10') wide N fork	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

DETERMINATION: Is this plot a Wetland? YES NO

Comments: Concrete culvert Inflow & outflow = vertical gate outflow
Determined by: CMW + CG (C. Mirth Walker + Christie Galen) *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland IC-1
Pioneer Park
Field Date 7/20/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			90% : 50 park, 50 unused grassland
Agriculture			
Forest			- Mitigation site potential (?)
Developed	10% on E end - Industrial		
Other			

both South + North Fork

Parks vacant field N Res/Ag W Armory E

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			>90% residential + Industrial
Other			

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
b			

~1.5 acres

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
a			

GRR by ditch + pipe
McAlister Slu by channe

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
b		

500 yr only

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			C. Res/Ind
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				
Emergent			c. 35 % EM	
Scrub-shrub				
Forested		b. 65% 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 (EM)	c. open water (OW)
~~b~~ a			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
~~b~~ c			

25 Rural: 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			

60%

26 Urban: 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			

90%

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			

by pipe to Irr. Ditch etc.

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
d				

*bet. = between (bold questions = field)

Fisheries Habitat Wetland IC-1

29 What fish species are present at some time during the year? Stream, lake or pond?

b	a. salmon, trout or sensitive species	b. other fish species gambusia by s. inflow culvert	c. no species at any time during the year	No GRR fish?

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

b	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel	(Ranked WL as Stream Channel)

31 What percentage of the stream is shaded?

a	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?

c	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex) NA

33 How does the water depth vary?

/	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

a	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps	North fork from GRR South fork from ICT1+2 (?)

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow	vertical bars (grate)

39 If the primary source of water is surface flow, is the inflow restricted?

a	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible	controlled by Irrigation Canal Co.

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

b	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

a	a. yes	b. no	hills to West (OR Trail Tracks)

43 Is there existing physical public access to other habitats listed in question 42?

a	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 from the site	c. observation of other features can't be made from the site	√ on who owns Hillslope to west

Wetland IC-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

a	a. no	b. yes	(list physical barriers) = grass, mowed

45 Is public access to the wetland allowed?

a	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

a	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous	Pioneer park – ample parking

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.	Some camping activity noted north of WL

49 Is fishing allowed at the wetland or adjacent water body?

a ~~b~~	a. yes (all or part of year)	b. no	-?

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

Aesthetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a	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	a. yes	b. no	- hobo camp N. side

54 If the site contains visual detractors, can they be easily removed?

a	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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)?

b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe. near Railroad

b	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

a or b	a. more than two	b. two	c. one

some shrubs

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland IC-1 Pioneer Park (Note: This wetland prds. not jurisdictional - Irrigation, mostly)

Wildlife Habitat		
1	a	
2	a	
3	c	interspersion
4	c	size of OW
5	a	
6	a	
7	c	WQ - GRR
8	a	
9	a	
DEGRADED		

Sensitivity to Impact		
1	a	
2	a	
3	a	
4	c	
5	a	
6	a	
SENSITIVE		

Fish Habitat	Ranked WL as stream channel	
Streams and Rivers		
1	a	
2	b	
3	c	
4	c	
5	a	
6	b?	possibly "a" fish
Lakes and Ponds		
1		
2		
3		
4		
5		
6		
DEGRADED		

Enhancement Potential		
1	a	
2	a	
3	a	controled by Irr. Co.
4	b	
5	c	
6	c	
MODERATE - IGNORE 5 = (HIGH)		

Education		
1	a	
2	a	
3	b	
4	a	
5	a	
6	a	
HAS		

Water Quality (pollutant removal)		
1	a	2 sources of water
2	a	flooding
3	a	
4	b	
5	c	
6	a	
INTACT		

Recreation		
1	a	
2	c	
3	c	
4	b	
5	a	
6	b	
provides		

Hydrologic Control (flood control & water supply)		
1	b	500yr only
2	a	
3	b	vertical bars (grate)
4	b	
5	a	
6	a	
7	a	
INTACT		

Aesthetic Quality		
1	a or b	
2	b	
3	b	Hobo camp
4	a	
5	a	
6	b	near rail road
pleasing		

City of La Grande Wetland Assessment Summary Sheet

Wetland: IC-1 Pioneer Park (Note: This wetland is probably not jurisdictional)			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: IC-2	**DRAINAGE:** Irrigation Canal Co. Ditch	**Field Date:** 7/22/95
Location: West of railroad tracks; West of East O Avenue		**Observer:** RK
Tax Map: _	**Tax Lot:** _	**Acres:** .10
T3S R38E Sect: 8AB, Tax Lots 6600 and 6700		
Sect. 8BA, Tax Lots 100, 200, 300, 400 and 500		**On-site:** Yes

General Description: IC-2 is an irrigation ditch which flows adjacent to the Union Pacific Railroad tracks. The ditch crosses the tracks and then goes into a culvert. The south half of this segment has no trees and is dominated by reed canarygrass. The north half has good riparian cover dominated by box-elder. Created entirely in an upland setting.

NWI Classification: 50% EM, 50% FO

Mapped Soils: (63) Urban land - La Grande Complex

On-Site Soils: 10YR 2/1 silty clay

Hydrologic Source/Comments: Irrigation water (Grande Ronde River). Channel width approximately 3 to 4 feet; depth 18 inches.

Dominant Vegetation (*major dominant):

Herbs
Phalaris arundinacea, FACW
Equisetum laevigatum, FACW
Rumex crispus, FAC+

Shrubs
Salix exigua, OBL
Elaeagnus angustifolia, FAC

Trees
Acer negundo, FAC+

Boundary Information: On one side is single family residential; the other is Union Pacific Railroad tracks. Upland species are reed canarygrass, downy cheat grass, quack grass, willow, prickly lettuce, Wood's rose, smooth scouring-rush, yellow salsify, and various horticultural species. Not a significant wetland because excavated entirely from uplands

Wetland Functions: Marginal wildlife habitat.

Features: None.

Jurisdictional: No

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # IC-1, 2, &3 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; X (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

26-28

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: IC-2 County: Union State: OR Date: 7/22/15 Plot: IC-2
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: Irrigation Canal Co. Ditch along RR tracks
Topographic Location:
Do Normal Circumstances exist on the site? Y N Explain:
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 27		
1. Phalaris arundinacea	20	FACW
2. Equisetum laevigatum	5	FACW
3. Rumex crispus	2	FAC+
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: 10		
1. Salix exigua	5	OBL
2. Eleagnus angustifolia	5	FAC
3.		
4.		
5.		
Tree Stratum - % total cover: 20		
1. Acer negundo	20	FAC+
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 100 = _____
Hydrophytic Vegetation Criterion Met? (YES) NO
UPL species: see comments under Determination

SOILS

Mapped unit name: Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10"	B	10YR 2/1	— — — —	Silt/clay

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
X Sulfidic Odor (faint) ___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: ~18" Depth to saturation: ~ Depth to free water: —

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

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

Comments: Upland species PHAR, BRTE, AGRE, LASE, ROWO, EQLA, TRDU[VA]
Determined by: Randy Krichbaum *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: IC-3	**DRAINAGE:** Irrigation Canal Co. Ditch	**Field Date:** 7/22/95
Location: East of 22nd St		**Observer:** RK
Tax Map: _	**Tax Lots:** See Below	**Acres:** .20
T3S R38E Sect: 9		**On-site:** Yes

General Description: IC-3 is an irrigation ditch approximately 2 feet wide by 8-10 inches deep. It flows through a residential area and agricultural fields. Some sections have tree and shrub cover, but other sections have only weedy forbs. Tree and shrub cover is denser west of Grande Ronde Ditch than in the agricultural fields to the east. Golden willow, sandbar willow, and black cottonwood are the major tree species. Note: This is also known as Gekeler Ditch.

NWI Classification: 50% EM, 50% SS

Mapped Soils: (36) La Grande silt loam

On-Site Soils: 10YR 2/1 clayey silt loam

Hydrologic Source/Comments: Irrigation water (Grande Ronde River).

Dominant Vegetation (*major dominant):

Herbs
Phalaris arundinacea, FACW
Rumex crispus, FAC+

Shrubs
Salix exigua, OBL

Trees
Populus trichocarpa [*balsamifera*], FAC
Salix alba var. *vitellina*, FACW

Boundary Information: The wetland boundary is distinct. Vegetation changes to various horticultural species, yellow salsify, willow lettuce, western tansymustard, common dandelion, scotch thistle, Canada thistle, golden willow, and quack grass. Not a significant wetland because excavated entirely from uplands.

Wetland Functions: Marginal wildlife habitat.

Features: None

Jurisdictional: No

Section 8AA, Tax Lots 4400 and 4800
Section 8AB, Tax Lots 4000, 4100, 5300, 5400, 5403, 5405 and 5406
Section 8AD, Tax Lots 100, 101, 200, 201 and 300
Section 9BC, Tax Lots 901, 909, 910, 911, 912, 915, 916, 917, 1100, 1101, 1201, 1202, 1300, 1301, 1304 and 1400

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # IC-1, 2, &3 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; X (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: IC-3 County: Union State: OR Date: 7/22/95 Plot: IC-B
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Irrigation Canal Co. Ditch
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Phalaris arundinacea	10	FACW
2. Rumex crispus	3	FAC+
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. Salix exigua	5	OBL
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1. Populus trichocarpa	5	FAC
2. Salix alba	2	UPL
3.		

Remarks: ____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/5 = 80%
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
10	B	10YR 2/1	—	Clay/Silt Loam

___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: 10-14" Depth to saturation: — Depth to free water: ____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
X Water Marks	Recorded Data Available (aerials, gauge) ? - Explain: ____	
X Drift Lines	Other: ____	
X Sediment Deposits	Remarks: Flowing irrigation canal	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: Randy Krichbaum *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: ICT-1	**DRAINAGE:** Irrigation Canal Co. Ditch Tributary	**Field Date:** 7/20/95
Location: Hillside seep west of Pioneer Park		**Observer:** CG/CMW
Tax Map: _	**Tax Lots:** 300 and 400	**Acres:** .80
T3S R38E Sect: 6 Quarter: NW		**On-site:** Yes

General Description: ICT-1 is an intermittent drainage and seep area located on the hillslopes southwest of Pioneer Park and northeast of Highway 30. Vegetation consists of a variety of wetland species including sedges, rushes, and grasses.

NWI Classification: 100% EM

Mapped Soils: (60D) Ukiah silty clay loam, 2-20% slopes (hydric inclusions)

On-Site Soils: 10YR 2/1 gravelly silty loam

Hydrologic Source/Comments: Overland flow, precipitation, possible seeps.

Dominant Vegetation (*major dominant):

Herbs
Juncus effusus, FACW
Carex athrostachya, FACW
Juncus effusus, FACW
Poa compressa, FACU+
Carex aquatilis, OBL
Agrostis stolonifera, FAC
Juncus balticus, FACW+

Shrubs
Crataegus douglasii, FAC
Prunus virginiana, FACU

Trees

Boundary Information: Distinct vegetation change to smooth brome, bachelor's button, slender cinquefoil, yellow salsify, and squirreltail. Does not meet significance criteria because too small to provide notable functions.

Wetland Functions: Well vegetated; helps prevent erosion.

Features: Diverse plant community; remnant iris/sedge/rush community.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # ICT-1 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: _____ County: Union State: OR Date: 7/20 Plot: ICT-1

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: W of Pioneer Park, W of Head of S Ballfield South of intermittent drainage

Topographic Location: _____

Do Normal Circumstances exist on the site? Y N Explain: _____

Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. Juncus balticus (?)		FACW
2. Carex athrostachya		FACW
3. Carex aquatilis		OBL
4. Agrostis stolonifera		FAC
5. Juncus tenuis		FACW-
6. Iris missouriensis		FACW+
7. Dipsacus sylvestris		FAC
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1. Prunus virginiana		FACU
2. Crataegus douglasii		FAC
3.		
4.		
5.		
Tree Stratum - % total cover:		
1.		
2.		
3.		

Remarks: Baltic rush, slender beaked sedge, water sedge, Cr. bentgrass, W. blueflag, teasel +

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 8/9 = 89%

Hydrophytic Vegetation Criterion Met? (YES) NO

chokecherry, Douglas hawthorne

SOILS

Mapped unit name: _____ Matches Profile? Y N

Taxonomy: _____ Drainage Class: _____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-6		10YR 2/1		gr SiL
				ROCKY

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer

___Histic Epipedon _X_Gleyed low chroma ___Organic Streaking

___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan

___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Can't dig deeper; too dry

Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: _____ Depth to saturation: DRY Depth to free water: _____

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 ?	

spring seep

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

Comments: Obvious WL area, vegetation defines boundary

Determined by: CMW + CG

Fishman Environmental Services

Wetland Assessment - City of La Grande, Oregon

Wetland ICT-1
Hillside seep
Field Date 7/20/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	(a) <20%	b. bet.* 20% & 50%	(c) >50%
Open Space			80% rangeland +15% OS
Agriculture			
Forest			
Developed	5% Res		
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space		b. 50 OS	
Agriculture			
Forest			
Developed		b. 50 Residential	
Other			

17 What is the wetland acreage?

b	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres	~0.8 ac

18 How is wetland connected to stream, lake, or pond?

b	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile	GRR

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

b	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%	
Open Space				
Agriculture				
Forest				
Developed			100% Res	- what is zoning upslope?
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				
Emergent	a. 100			
Scrub-shrub				few shrubs
Forested				

22 How many wetland plant species are present (urban areas)?

a	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

b	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

c	a. high	b. moderate	c. low

25 Rural: What percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

a	a. >40%	b. bet. 10% & 40%	c. <10%

26 Urban: What percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

a	a. >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

a	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	to IC-1 by pipe/culvert (we think)?

Estimate area of unvegetated open water within the wetland.

d	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat NA

Wetland ICT-1

29 What fish species are present at some time during the year? Stream, lake or pond?

	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?

(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps
b(+c)			

37 Is there evidence of flooding or ponding during a portion of the growing season?

	a. yes (describe)	b. no	c. unable to determine
b			

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. permanent blockage exists and alternative flow channels are not feasible
a			

steep slope inflow

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

	a. no	b. yes
NA or b		

Public Access to Wetland Site

41 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 safety hazards (describe)	c. more than two safety hazards (describe)
a			

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

open land + OR Trail Wagon Wheel Ruts

	a. yes	b. no
a		

43 Is there existing physical public access to other habitats listed in question 42?

	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 from the site	c. observation of other features can't be made from the site
b ? (or a)			

don't know if private upslope or not

Wetland ICT-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

a	a. no	b. yes	(list physical barriers) accessible by car @ bottom

45 Is public access to the wetland allowed?

a or b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed	landowner?

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

a	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

b or c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

b	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

c	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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)? Hwy 30

b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe. Small WL – nice sedges etc.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

b or c	a. more than two	b. two	c. one

shrubs

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland ICT-1 Hillside Seep west of Pioneer Park

Wildlife Habitat		
1	b	
2	b	seeps (dry in sum)
3	c	
4	c	size
5	b	
6	a	
7	a	
8	a	+ rangeland
9	a	
	DEGRADED unless *ignore small size, then Intact	

Fish Habitat	NA	
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		

Water Quality (pollutant removal)		
1	b (+c)	
2	b	- no evidence of flooding
3	a	
4	b	
5	c	
6	c	
	DEGRADED (but close to intact)	

Hydrologic Control (flood control & water supply)		
1	b	
2	b	
3	b	
4	a	
5	b	
6	a + c	
7	a	
	DEGRADED	

Sensitivity to Impact		
1	a	
2	b	
3	c	
4	c	
5	a	
6	b	
	potentially sensitive	

Enhancement Potential		
1	a	
2	(b+) c	
3	a	
4	b	
5	c	zoning
6	b	
	HIGH if delete #5 if not then Moderate	

Education		
1	a	
2	a	
3	b	
4	b?	ora
5	a	
6	a	
	Has EDUC. USES	

Recreation		
1	a	
2	c	
3	b or c	
4	b	
5	b	
6	b	
	POTENTIAL	

Aesthetic Quality		
1	c	1 class - so?
2	a	
3	a	
4	a	
5	a	
6	b	
	pleasing	

City of La Grande Wetland Assessment Summary Sheet

Wetland: ICT-1 Hillside Seep West of Pioneer Park			
Function / Value	**Descriptor**		
Wildlife Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Wildlife Habitat would be intact if small size of wetland is ignored.
*Fish Habitat not applicable for this wetland.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: W of Pioneer Pk County: Union State: OR Date: 7/20/95 Plot: ICT-2
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: N side of intermittent drainage, W. of Pioneer Park Ballfields, N of ICT-1 seep.
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Poa compressa	60%	FACU+
2. Bare / Rock		
3. DI SY	45%	
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: Ø		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: Ø		
1.		
2.		
3.		

Remarks: ____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 0/1 = Ø%
Hydrophytic Vegetation Criterion Met? YES (NO)
Upland: Bachelor button, Sitanion, Potentilla gracilis, Syal, Trdu, Agre, Rowo

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-4"		10YR 2/1		gravelly sandy silt loam
Refusal / Rocks + gravels				

___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: 1" → imm. after rain Depth to saturation: ____ Depth to free water: ____ Runoff drainage 1' wide

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: Intermittent stream / stormwater runoff	
___Sediment Deposits	Remarks: ____	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments: Stormwater runoff.
Determined by: CMW, CEG *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: LT-1 **DRAINAGE:** Little Taylor Creek	**Field Date:** 7/21/95
Location: Between Highland and Hillcrest	**Observer:** CMW
Tax Map: _ **Tax Lots:** See Below T3S R38E Sect: 17	**Acres:** .98 **On-site:** Yes

General Description: Little Taylor Creek is a floodway channel corridor surrounded by residences. There is a floodway diversion constructed to transfer water from the Big Taylor drainage. Intermittent stream; three 36 inch culverts in place to handle flash floods. Channel is wide, approximately 25 feet, with mostly gradual slope. Some shade from "riparian" vegetation: sumac, lilac, Lombardy poplar.

NWI Classification: 90% EM, 10% FO

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: 10YR 2/1 clay

Hydrologic Source/Comments: Surface runoff, also receives water from the diversion of Big Taylor Creek up above the housing development (Sunny Hills).

Dominant Vegetation (*major dominant):

Herbs
Alopecurus geniculatus, OBL
Alopecurus pratensis, FACW
Carex species
Festuca arundinacea, FAC-
Dipsacus sylvestris, FAC
Phleum pratense, FAC-
Lolium perenne, FACU
Epilobium species

Shrubs

Trees
Populus nigra var. *italica*, NOL

Boundary Information: Gradual slope; vegetation changes to bachelor's button, willow, prickly lettuce, ornamental rose and western sumac. Big Taylor, Little Taylor, and Sunnyhills Park were evaluated as one wetland unit because of their connectivity. The complex meets the significance criteria based on hydrologic control and water quality improvement functions.

Wetland Functions: water quality, hydrologic control.

Features: potential for recreation trail in bottom.

Jurisdictional: Yes
Section 17, Tax Lot 2000
Section 17AC, Tax Lots 5300, 5400, 5500, 5600, 5700, 5800, 5900, 5901, 6000, 6001, 6100, 6200, 6300, 6400, 6600, 6700, 6800, 7200, 9000, 9100, 9200
Section 17DB, Tax Lots 101, 103, 105 and 300

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # BT-1, BT-2, &LT-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, __X__ *intact* water quality, or __X__ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND SUMMARY SHEET

WETLAND: MC-1 **DRAINAGE:** Upper Mill Creek	**Field Date:** 7/22/95
Location: Behind west end of Miller Drive off 2nd Ave.	**Observer:** CG/CMW
Tax Map: _ **Tax Lots:** See Below T3S R38E Sect: 7 and 18	**Acres:** .30 **On-site:** Yes

General Description: MC-1 is Upper Mill Creek (southwest corner UGB), a perennial stream which receives runoff from tributaries as well. Area examined is grazed pasture land (on-site by permission of land-owner). Stream is not channelized, appears natural, had excellent water flow during site visit. Stream is approximately 40% shaded in this area by blue elderberry, wavy-leaved alder, and black locust. Herbaceous vegetation included tall fescue, western buttercup, field mint, timothy and small-fruited bulrush.

NWI Classification: 100%R

Mapped Soils: (56F) Royst very stony silt loam, 35-70% slopes and (64) Urban land - Ramo Complex, 2-15% slopes to east

On-Site Soils: Rocky; not sampled.

Hydrologic Source/Comments: Surface water, perennial stream; water 8 inches deep, channel approximately 3-10 feet wide. Rocky, small boulders.

Dominant Vegetation (*major dominant):

Herbs
Festuca arundinacea, FAC-
Ranunculus occidentalis, FAC
Mentha arvensis, FACW-
trace *Phleum pratense*, FAC-
Scirpus microcarpus, OBL (?)

Shrubs

Trees
Sambucus cerulea, FACU
Alnus sinuata, FACW
Robinia pseudoacacia, FACU

Boundary Information: Distinct topographic break between stream channel and hillslope but no floodplain wetlands. Wetland significance test is not appropriate for streams without notable wetlands along margins.

Wetland Functions: Runoff, water flow.

Features: Butterflies-swallowtail, painted lady; tree frog.

Jurisdictional: Yes
Section 7DA, Tax Lots 7900 and 8200
Section 7DC, Tax Lots 3000, 3002, 3009, 3300, 3400, 3401, 3402, 3403, 3404
Section 7DD, Tax Lots 2001, 2100, 2200, 5701, 5702, 5800, and 5900
Section 18, Tax Lots 400 and 500

WETLAND SUMMARY SHEET

WETLAND: MC-2 **DRAINAGE:** Upper Mill Creek **Field Date:** 7/22/95

Location: Avenue A to College **Observer:** CG/CMW

Tax Map: _ **Tax Lots:** **Acres:** .50
T3S R38E Sect: 7DA, Tax Lots 100, 101, 200, 300, 700, 5100, 5500, 5600, 6100, 6200, 6300, 6301, 6902, 8400, 8500, 8600, 8601, 8700 **On-site:** Yes

General Description: MC-2 is a fast flowing stream surrounded by residential development. This reach runs from about Avenue A to the College, and has been straightened along much of its length. The channel is approximately 10 feet wide and 5 feet deep with a rocky bottom. The channel is mostly open with scattered pockets of trees and shrubs.

NWI Classification: 90% EM, 10% FO

Mapped Soils: (64) Urban land - Ramo Complex, 2-15% slopes

On-Site Soils: Rocky, not sampled.

Hydrologic Source/Comments: Stream, surface water runoff.

Dominant Vegetation (*major dominant):

Herbs
Juncus ensifolius, FACW
Scirpus microcarpus, OBL
Mimulus guttatus, OBL
Melilotus officinalis, FACU

Shrubs
Alnus sinuata, FACW
Cornus stolonifera, FACW
Salix exigua, OBL

Trees
scattered throughout

Boundary Information: Distinct topographic break. Creek is channelized through parts of city; numerous bridges for driveways and culverts for streets and yards, pathway difficult to follow. Wetland significance test is not appropriate for streams without notable wetlands along margins.

Wetland Functions: Runoff conveyance.

Features: None.

Jurisdictional: Yes

WETLAND SUMMARY SHEET

WETLAND: MC-3 **DRAINAGE:** Mill Creek	**Field Date:** 7/22/95
Location: Birnie Park	**Observer:** CG/CMW
Tax Map: _ **Tax Lot:** 2400 T3S R38E Sect: 8CC	**Acres:** .50 **On-site:** Yes

General Description: MC-3 is an emergent area at the base of a hillslope. Water flows onto the site from the north in the northwest corner of the wetland. The understory was quite varied with reed canarygrass, broad-leaf cattail, Canada thistle, American speedwell, reed mannagrass, quack grass, spreading bentgrass, western buttercup, a many-petaled buttercup (species unknown), and others. Tree cover included golden willow; shrubs included black cottonwood and black hawthorn. This wetland area is located within Birnie Park and is easily accessible.

NWI Classification: 80% EM, 10% SS, 10% FO

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes
On-Site Soils: 10YR 2/1 silty clay

Hydrologic Source/Comments: Groundwater seepage from hillslope to the south, surface drainage from northwest corner (near corner of shed and tree), probably subsurface continuation of Mill Creek and Spence reservoir. Drainage is culverted to east.

Dominant Vegetation (*major dominant):

Herbs
Phalaris arundinacea, FACW
Typha latifolia, OBL
Cirsium arvense, FACU+
Veronica americana, OBL
Glyceria grandis [*maxima*], OBL
Agropyron repens, FAC-
Agrostis stolonifera, FAC
Ranunculus species
Ranunculus occidentalis, FAC
Arctium minus, NOL
Epilobium watsonii [*ciliatum*], FACW-
Solanum dulcamara, FAC+

Shrubs
Populus tremuloides [*tremula*], FAC+
Crataegus douglasii, FAC

Trees
Salix alba var. *vitellina*, FACW

Boundary Information: Distinct topographic break (south), gentle slope north; vegetation changes to mowed lawn (north and east), vegetable garden (west). Meets significance test because of high level of water quality improvement function.

Wetland Functions: Water quality, potential education and recreation values.

Features: Birnie Park.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # MC-3 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, _X___ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Birnie Park County: Union State: OR Date: 7/22/95 Plot: MC-3

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Near East end of WL area, unmowed + cuWeAed TO E –

Topographic Location: ____

Do Normal Circumstances exist on the site? 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: ____			**Shrub/Sapling** Stratum - % total cover: ____		
1. Ranunculus sp. (>50 petals) yellow	?	FAC or wetter	1. Crataegus douglasii		FAC
2. PHAR (Phalaris arundinacea)		FACW	2. ____		
3. Agrostis stolonifera		FAC	3. ____		
4. Ranunculus occidentalis		FAC	4. ____		
5. Glycera grandis		OBL	5. ____		
6. Veronica americana		OBL	Tree Stratum - % total cover: ____		
7. Epilobium watsonii		FACW-	1. Salix alba vitellina		FACW
8. Typha latifolia		OBL	2. ____		
9. ____			3. ____		

(Buttercup + W. buttercup, reed canarygrass; bentgrass, tall mannagrass, Am speedwell, Watson's willow weed, cattail, bl. hawthorne, golden willow)

Remarks: 80% EM / 10 SS / 10 FO

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): ____ = 100%

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL: Lolium perenne, mowed grass; Black Hawthorn + golden willow

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-8		10YR 2/1		Silt - Silty Clay

___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

Big WL

HYDROLOGY

Depth of inundation: 1" Depth to saturation: Surface Depth to free water: ____

Flow channel 1' wide

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: CMW + CG *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland MC-3
Birnie Park
7/22/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space		50 slope + 25 park =	C.
Agriculture			
Forest			
Developed		b. 25 Res	
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			C.
Agriculture			
Forest			
Developed	a.		
Other			

17 What is the wetland acreage?

C.	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to stream, lake, or pond? 2000' culvert upstream, 400' culvert downstream?

b a	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

Miller Pond to wetland see Q 27

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

b	a. yes	b. no

500yr only

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% Residential
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				
Emergent	a. 80			
Scrub-shrub				b. 10
Forested				b. 10

22 How many wetland plant species are present (urban areas)?

a	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

b	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

C	a. high	b. moderate	c. low

25 Rural: What percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

C	a. >40%	b. bet. 10% & 40%	c. <10%

26 Urban: What percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

C	a. >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

a	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

Estimate area of unvegetated open water within the wetland.

d	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat NA Wetland MC-3

29 What fish species are present at some time during the year? Stream, lake or pond?

	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland) -30

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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? Upper Mill Creek?

a(+c)	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted? (beaver dam, concrete structure, undersized culvert)

b	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow

Vertical grate = b? (trashrack)

39 If the primary source of water is surface flow, is the inflow restricted?

a	a. not restrictd or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

inflow = culvert

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

b	a. no	b. yes

piped

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

b	a. yes	b. no

43 Is there existing physical public access to other habitats listed in question 42?

c.	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 from the site	c. observation of other features can't be made from the site

Is access to a viewing spot or wetland edge difficult for individuals with limited mobility? (list physical barriers)

a	a. no	b. yes

45 Is public access to the wetland allowed? Wetland MC-3

a	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

a	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous	limited safe parking @ Birnie Park

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

b	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.	– mowed lawn

49 Is fishing allowed at the wetalnd or adjacent water body?

b	a. yes (all or part of year)	b. no	(NA)

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

Aesthetics

51 Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

Urban: what is the visual character of the surrounding area?

b	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

a or NA	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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)?

b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

a	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland MC-3 Birnie Park

Wildlife Habitat		
1	~~a~~ b	(20% only not 10%)
2	b & c	(some water present)
3	c	
4	c	
5	b	
6	a	
7	a	
8	a	
9	c	
	IMPACTED OR DEGRADED	

Fish Habitat		
1		
2		
3		
4		
5		
6		
	NA	

Water Quality (pollutant removal)		
1	a (+c)	
2	a	
3	a	
4	b	
5	(25%a) c	
6	c	
	INTACT	

Hydrologic Control (flood control & water supply)		
1	b	
2	a	
3	c	
4	b	
5	b	
6	c	
7	b+c	
	IMPACTED OR DEGRADED	

Sensitivity to Impact		
1	a?	(piped)
2	b	
3	c	
4	c	
5	a	
6	b	
	Potentially sensitive to Future Impacts	

Enhancement Potential		
1	a, /, a	
2	a (+b)	
3	a	
4	c	(size)
5	c	← always true
6	b	
	High Enhancement Potential if ignore #5 otherwise moderate	

Education		
1	a	
2	a	
3	b	
4	c	
5	a	
6	a	
	Has Educ. Uses	

Recreation		
1	a	
2	c	boat
3	b	
4	b	
5	b (NA)	
6	b	(hunting)
	Potential to provide Recreat. Opportunity	

Aesthetic Quality		
1	a	
2	a	
3	b	
4	a/(b)	
5	a	
6	(a)/b	
	pleasing	

City of La Grande Wetland Assessment Summary Sheet

Wetland: MC-3 Birnie Park			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat not applicable for this wetland.

WETLAND SUMMARY SHEET

WETLAND: MC-4 **DRAINAGE:** Mill Creek (Window Area)	**Field Date:** 7/21/95
Location: North of Gekeler Lane, East of Birnie Park	**Observer:** CG/RK
Tax Map: _ **Tax Lot:** 201	**Acres:** .05
T3S R38E Sect: 8 Quarter: SW	**On-site:** Yes

General Description: MC-4 appears to be a remnant emergent swale located north of Gekeler Lane. Vegetation is diverse including grasses, sedges, rushes, spikerush, and cattail. The wetland is narrow and linear. Partly ditched and piped.

NWI Classification: 100% EM

Mapped Soils: (54C) Ramo Variant silt loam, 2-12% slopes

On-Site Soils: N 2/0 black clay with 10YR 5/4 mottles

Hydrologic Source/Comments: Surface runoff; possibly groundwater seepage below Spence reservoir and Mill Creek alluvial fan.

Dominant Vegetation (*major dominant):

Herbs

Juncus balticus, FACW+
Carex stipata, OBL
Eleocharis palustris, OBL
Typha latifolia, OBL
Poa compressa, FACU+
Festuca arundinacea, FAC-

Shrubs

Trees

Boundary Information: Vegetation changes to yellow salsify, field morning-glory, English plantain, chicory, and mowed grass. Adjacent wetlands MC-4 through 7 function together in improving water quality and detaining storm flows, and therefore meet the significance criteria. *Note: With the construction of the National Guard Armory and Integrated Services Building, wetlands in this area have been altered.*

Wetland Functions: moderate.

Features: None.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # MC-4, 5, 6, &7 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, __X__ *intact* water quality, or __X__ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

MC-4

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: MC-4 County: Union State: OR Date: 7/21/95 Plot: MC-4
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Windowarea, n of Gekeler lane, E of Birnie Park
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 7115		
*1. Carex Stipata	50%	OBL
2. EP WA	trace	FACW-
*3. Poa sp.	20% (Poa compressa)	FACW+
*4. TY LA	15%	OBL
*5. JU BA ?	15%	FACW
6. FEAR	5%	FAC-
7. EL PA	10%	OBL
8. DI SY	TR	FAC
9. CAREX SP.	TR	
10. ALPR	TR (Alopecurus pratensis)	FACW

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: Ø		
1.		
2. (Epilobium watsonii)		
3.		
4. (Typha latifolia		
5. (Juncus balticus?)		
Tree Stratum - % total cover: Ø		
1. (Festuca arundinacea) (Eleocharis palustris)		
2. (Dipsacus sylvestris)		
3.		

Remarks: ____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/4 = 75%
Hydrophytic Vegetation Criterion Met? (YES) NO Note: including #4+5 Herb because of diverse species, % cover present

Sawbeak sedge, Watson's willow-herb, Canada bentgrass, cattail, Baltic rush, tall fescue, creeping spikerush, teasel, sedge, meadow foxtail,

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-10		N 2/0 Black	10YR 5/4 Fine - Medium	Clay

___ 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: 1" not flowing Depth to saturation: surface Depth to free water: ____

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	

8' wide - parallels road, mowed adj. upland

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: CG / RK *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

MC-4, -5
Wetland -6, +-7
Mill Creek/Window Area
Field Date 7/21/95

N of Gekeler Lane
E of Birnie Park
to 20th St.

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space	15% but developing		
Agriculture		30% but developing	
Forest			
Developed			55% Res
Other	INTENSE DEVELOPMENTAL PRESSURE		IN WINDOW AREA

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% Res
Other			

15. 1000' Res
~~600~~ 600' OS but developing
2400' 1/2 Res
1/2 Ag
but developing

2200 Res = 55%
1200 Ag = 30%
~~600~~ 600 OS = 15%
4000 feet total length

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
b			

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
a			

(ditch/pipe Mill Creek)

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
a		

MC-7 only (12th to 20th)
rest in 500yr Flood

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% Residential
Other			

17. 1200 x 50'
+ 950 x 3'
+ 1850 x 1'

= 40,700 SF
= 0.9 ac

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				
Emergent	100% EM			
Scrub-shrub				
Forested				

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
a			

some parts b

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)
b			

water present

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
c			

25 Rural: 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%
c			

26 Urban: 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			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
d				

2U

*bet. = between (bold questions = field)

Fisheries Habitat Wetland MC4 - MC7

29 What fish species are present at some time during the year? Stream, lake or pond?

? Cord	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland) – WL itself

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

b	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel	channelized

31 What percentage of the stream is shaded?

Cord	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?

c	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

a	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps	Mill Creek

37 Is there evidence of flooding or ponding during a portion of the growing season?

a?	a. yes (describe)	b. no	c. unable to determine	Floods

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow	? culvert undersized?

39 If the primary source of water is surface flow, is the inflow restricted?

a	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible	pipe

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

b?	a. no	b. yes	channelized (piped)

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

b (a)	a. yes	b. no	only S. hills

43 Is there existing physical public access to other habitats listed in question 42?

~~c~~ c(b)	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 from the site	c. observation of other features can't be made from the site

Wetland MC-4 - MC-7

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

a	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed?

a?	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

a	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

b?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

b	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

b	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a or b	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)?

b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

c	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland MC-4,-5,-6,-7 Mill Creek/Window Area

Wildlife Habitat		
1	b	
2	b	
3	c	
4	c	
5	a	
6	a	
7	a	
8	c	
9	b	
DEGRADED		

Fish Habitat		
Streams and Rivers	Ranked WL itself	
1	b or c	
2	b	
3	c	
4	a	
5	c	
6	b or c	?
Lakes and Ponds		
1		
2		
3		
4		
5		
6		
DEGRADED		

Water Quality (pollutant removal)		
1	a	
2	a?	Floods
3	a	
4	b	
5	a	
6	c	no data on upstream
INTACT		

Hydrologic Control (flood control & water supply)		
1	a	
2	a?	Floods
3	b	
4	b	
5	b	
6	a	
7	a	
INTACT		

Sensitivity to Impact		
1	a?	channelized, (Piped)
2	b	
3	a	
4	a	
5	a	
6	b	
potentially sensitive (close to sensitive)		

Enhancement Potential		
1	a	
2	a	
3	a	
4	b	
5	c	
6	b	
HIGH (Higher than rest)		

Education		
1	a?	
2	a	
3	b	
4	(b or) c	
5	a	
6	a	
HAS		

Recreation		
1	a	
2	c	boat
3	(b or) c	no trails exist but could develop → b
4	b	
5	b?	
6	b	
POTENTIAL (1 more a + it would ~~have~~ provide rec)		

Aesthetic Quality		
1	c	
2	a	
3	a	
4	b	
5	a or b	
6	b	
CONSIDERED PLEASING		

City of La Grande Wetland Assessment Summary Sheet

Wetland: MC-4, MC-5, MC-6 and MC-7 Mill Creek / Window Area			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: MC-5 **DRAINAGE:** Mill Creek	**Field Date:** 7/21/95
Location: Northwest of 12th / Gekeler Lane, Window area	**Observer:** RK/CG
Tax Map: _ **Tax Lot:** 201	**Acres:** .25
T3S R38E Sect: 8 Quarter: SW	**On-site:** Yes

General Description: MC-5 is a small pond and ditch. They were both dry at the time of the survey, but show signs of recent inundation. They are surrounded by a transitional upland meadow. MC-5 is a remnant channel from Spence Reservoir (Davidson Lake) and Mill Creek. The pond appears to be excavated. Portions have been altered by construction at the National Guard Armory site.

NWI Classification: 100% EM

Mapped Soils: (50C) Ramo silty clay loam, 2-15% slopes

On-Site Soils: 10YR 4/1 clay with 2.5YR 4/4 mottles over N 2/0 clay

Hydrologic Source/Comments: Surface runoff, groundwater seepage from Mill Creek and Spence reservoir.

Dominant Vegetation (*major dominant):

Herbs

Alisma plantago-aquatica, OBL)
Typha latifolia, OBL
Epilobium watsonii [*ciliatum*], FACW-

Shrubs

Trees

Boundary Information: Vegetation changes from American water plantain, broad-leaf cattail, and willowherb in the wetland to quack grass, timothy, bluegrass species, bulbous bluegrass, and teasel. Adjacent wetlands MC-4 through 7 function together in improving water quality and detaining storm flows, and therefore meet the significance criteria.

Wetland Functions: moderate.

Features: None.

Jurisdictional: Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: MC-5 County: Union State: OR Date: 7/21/95 Plot: MC-5
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Window area NW of 12th & Gekeler Lane
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. TYLA (Typha latifolia)		OBL
2. EPWA (Epilobium watsonii)		FACW-
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: Cattail & Watsons willowherb
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
		10YR 4/1	2.5YR 4/4	Clay
		N 2/0	-	Clay

Sampled 0 - 12"

___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

DITCH
Depth of inundation: ____ Depth to saturation: +0 Surface Depth to free water: ____

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: CMW w/ Amy & Dan *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: MC-6 **DRAINAGE:** Mill Creek	**Field Date:** 7/21/95
Location: South of E Ave. and west of 12th St., Window area (Armory Site)	**Observer:** CMW
Tax Map: _ **Tax Lot:** 201	**Acres:** N/A
T3S R38E Sect: 8 Quarter: SW	**On-site:** Yes

General Description: MC-6 is a narrow band of emergent vegetation located immediately south of E Avenue. Dominant vegetation included broad-leaf cattail, lesser duckweed, Watson's willow-herb, common horsetail, and sedge. Water was inundated approximately 10 inches deep. Portions of this wetland may have been altered by construction of the Armory.

NWI Classification: 100% EM

Mapped Soils: (50C) Ramo silty clay loam, 2-15% slopes

On-Site Soils: Not sampled in July; N 2/0 silty clay loam on 10/27/95

Hydrologic Source/Comments: Surface runoff and groundwater, possibly a remnant ditch; could find no culverts.

Dominant Vegetation (*major dominant):

Herbs

**Shrubs*Typha latifolia*, OBL*Lemna minor*, OBL*Epilobium watsonii* [*ciliatum*], FACW-*Carex* species*Equisetum arvense*, FAC (?)trace *Rumex crispus*, FAC+

Trees

Boundary Information: Distinct vegetation change to teasel and bluegrass. Adjacent wetlands MC-4 through 7 function together in improving water quality and detaining storm flows, and therefore meet the significance criteria.

Wetland Functions: moderate, could be enhanced.

Features: None.

Jurisdictional: Yes. Modified remnants of natural drainageway.

Note: This wetland was mitigated and filled as part of the National Guard Armory construction.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: MC-6 County: Union State: OR Date: 7/21/95 Plot: MC-6

Client: City of La Grande / DSL Sect: Township Range R38E City: La Grande or UGB

Plot Location: Narrow band S. of E Ave.

Topographic Location:

Do Normal Circumstances exist on the site? Y N Explain:

Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. TYLA (Typha latifolia)		OBL
2. LEMI (Lemna minor)		OBL
3. EPWA (Epilobium watsonii)		FACW-
4. EQAR? (Equisetum arvense?)		FAC
5. Carex sp.		FAC or wetter
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:		
1.		
2.		
3.		

Remarks: Trace RUCR (FAC+) (Rumex crispus) (Cattail, duckweed, watson's willowherb, field horsetail, sedge)

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 5/5 = 100%

Hydrophytic Vegetation Criterion Met? YES NO

VAL - DISP, POASP (FAC, ?) (Teasel, bluegrass)

SOILS

Mapped unit name: Matches Profile? Y N

Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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 - inundated

Hydric Soil Criterion / Indicators Met? YES NO Assumed Hydric

HYDROLOGY

Depth of inundation: 10" Depth to saturation: Depth to free water:

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: CMW + ADT DM *Fishman Environmental Services*

City of La Grande Wetland Assessment Summary Sheet

Wetland: MC-4, MC-5, MC-6 and MC-7 Mill Creek / Window Area			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: MC-7 **DRAINAGE:** Mill Creek	**Field Date:** 7/21/95
Location: North of Gekeler Lane, East of 12th St., west of 20th St.	**Observer:** CMW
Tax Map: _ **Tax Lots:** See Below	**Acres:** .60
T3S R38E Sect: 8	**On-site:** Yes

General Description: MC-7 is a continuation of the old channel of the Mill Creek and Spence Reservoir drainage. There is a 60 foot floodway easement, which the City maintains as part of its stormwater system. The drainage has been straightened and is approximately 30 feet wide and 5 feet deep, and is dominated by reed canarygrass with a few broad-leaf cattail present. The areas to the north and south of the drainage are currently under development.

NWI Classification: 100% EM

Mapped Soils: (50C) Ramo silty clay loam, 2-15% slopes

On-Site Soils: 10YR 2/1 clay over N 2/0 clay

Hydrologic Source/Comments: Surface runoff, groundwater from Mill Creek and Spence reservoir basins.

Dominant Vegetation (*major dominant):

Herbs
Phalaris arundinacea, FACW
Typha latifolia, OBL

Shrubs

Trees

Boundary Information: The surrounding area slopes up to the north and south and vegetation changes to timothy, teasel, chicory, quack grass, and rose. Adjacent wetlands MC-4 through 7 function together in improving water quality and detaining storm flows, and therefore meet the significance criteria.

Wetland Functions: moderate, could be enhanced.

Features: None.

Jurisdictional: Yes

Section 8DA, Tax Lot 3100
Section 8DC, Tax Lots 100, 200, 300 and 400
Section 8DD, Tax Lots 100, 500, 501, 600, 700, 800 and 900

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: ~~WA-1~~ MC-7 County: Union State: OR Date: 7/21/95 Plot: MC-7

Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB

Plot Location: N of Gekeler, E of 12th - window area ditch - floodway - easement

Topographic Location:

Do Normal Circumstances exist on the site? 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:			**Shrub/Sapling** Stratum - % total cover:		
1. PHAR (Phalaris arundinacea)	100	FACW	1.		
2. few Typha latifolia			2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum - % total cover:		
7.			1.		
8.			2.		
9.			3.		

Remarks: (Reed canarygrass + cattail)

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL: PHPR, DISY, CIIN, Rosa sp., AGRE (Timothy, teasel, chicory, Rose, quack grass)

SOILS

Mapped unit name: Matches Profile? Y N

Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-8		10YR 2/1		Clay
8-14		N 2/0		Clay

___ Histosol	___ Reducing Conditions (test)	___ Hi. Organic Cont. Surf. Layer
___ Histic Epipedon	X 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 CHANNEL/VEG ~30' wide, 5' deep

Depth of inundation: Depth to saturation: 0-14+ Depth to free water:

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: Water is flowing	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

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

Comments:

Determined by: CMW w/ Amy Drought + Dan Moore *Fishman Environmental Services*

City of La Grande Wetland Assessment Summary Sheet

Wetland: MC-4, MC-5, MC-6 and MC-7 Mill Creek / Window Area			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: MCT-1 **DRAINAGE:** Upper Mill Creek Tributary	**Field Date:** 7/22/95
Location: Pond southwest of City Reservoir in southwestern corner of UGB	**Observer:** CG/CMW
Tax Map: _ **Tax Lots:** 200, 303 and 304	**Acres:** .50
T3S R38E Sect: 18 Quarter: NE	**On-site:** Yes

General Description: MCT-1 is a pond located in a hillslope depression. Vegetation is diverse and ecologic integrity is high. Wildlife habitat values are high. The site provides water for a variety of wildlife species including breeding habitat for coots, red-winged blackbirds, and amphibians (no bullfrogs observed).

NWI Classification: 20% OW, 70% EM, 10% SS, trace FO

Mapped Soils: (12D) Cowsly very stony silt loam, 2-20% slopes

On-Site Soils: 10YR 2/1 south of ponded area

Hydrologic Source/Comments: Seeps, overland flow; water depth approximately 2 feet.

Dominant Vegetation (*major dominant):

Herbs
Eleocharis palustris, OBL
Glyceria grandis [*maxima*], OBL
Ranunculus species
Typha latifolia, OBL
Juncus acuminatus, OBL
Carex aquatilis, OBL

Shrubs
Crataegus douglasii, FAC
Salix species, FAC or wetter

Trees
Populus tremuloides [*tremula*], FAC+

Boundary Information: Distinct topographic break; vegetation changes to California oatgrass, meadow brome, slender cinquefoil, timothy, Spanish clover, common yarrow, yellow salsify, black hawthorn, snowberry, and clustered rose. Meets significance criteria for high levels of function listed below.

Wetland Functions: High wildlife habitat (diverse food and cover), water quality, hydrologic control functions; also aesthetics, and recreation values.

Wildlife Noted: Birds noted include coot, red-winged blackbird, magpie.

Features: Unique wetland: diverse native plant species, isolated from major stream corridors (no bullfrogs); potential amphibian breeding habitat.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # MCT-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: __X__ *diverse* wildlife habitat, __X__ *intact* fish habitat, __X__ *intact* water quality, or __X__ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Mill Creek Pond 1 County: Union State: OR Date: 7/22/95 Plot: MCT-1
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: E. side of pond depression
Topographic Location: Up above City reservoir
Do Normal Circumstances exist on the site? Y N Explain:
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. Eleocharis palustris	40	OBL
2. Glyceria sp.	20	FACW/OBL
3. Typha latifolia	10	OBL
4. Ranunculus sp. (aquatic)	10	prob OBL
5. Juncus acuminatus? along edge		OBL
6. Carex sp.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1. Crataegus douglasii		FAC
2. Salix sp.		FAC/wetter
3.		
4.		
5.		
Tree Stratum - % total cover:		
1. Populus tremuloides		FAC+
2.		
3.		

Remarks: 20%OW w/ emergents / 70% EM / 10% SS / Trace FO
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): _____ = _____
Hydrophytic Vegetation Criterion Met? YES NO
UPL: Iris missouriensis, Danthonia californica, Phleum pratense, Achillea millefolium
Lotus purshiana, Bromus mollis, Epilobium sp., Tragopogon dubius, Crataegus douglasii, Rosa pisocarpa

SOILS
Mapped unit name: Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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; inundated (Note: south of pond (+fence) soils
Hydric Soil Criterion / Indicators Met? YES NO 10YR 2/1 silt + silty clay 0-8")

HYDROLOGY
Depth of inundation: 2ft or so Depth to saturation: Depth to free water:

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: RW-BB, coots	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMW + CG *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland MCT-1
Upper Mill Ck
Field Date 7/22/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			100%? AG
Forest			or OS
Developed			not currently grazed
Other			

Tributary Pond

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			100% OS or Ag — then residential
Agriculture			
Forest			
Developed			
Other			

17 What is the wetland acreage?

a (?)	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

(area w/i UGB ≅ 0.5ac

18 How is wetland connected to stream, lake, or pond?

a or b	a. connected by surface water	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?

b or a	a. yes	b. no

→ may be enclosed basin

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100%
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			20% OW	
Emergent	70% EM			
Scrub-shrub				10% SS
Forested				trace FO

22 How many wetland plant species are present (urban areas)?

a	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

b	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

b	a. high	b. moderate	c. low	#5

25 Rural: What percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

a	a. >40%	b. bet. 10% & 40%	c. <10%

26 Urban: What percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

a	a. >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

b. bf	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

Estimate area of unvegetated open water within the wetland.

c or d	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat Wetland MCT-1

29 What fish species are present at some time during the year? Stream, lake or pond?

c ?	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year	Probably no fish here

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

a	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

b	a. 60% or more	b. bet. 20% & <60%	c. <20%	EM 80% SS 15% FO 5%

35 What percentage of the wetland complex contains submerged logs, floating submerged vegetation, large rocks or boulders?

a	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water?

a (b, c)?	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps	glacial bowl

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

a or b?	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	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

a	a. no	b. yes	-?

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

a	a. yes	b. no	hillslopes, open space (land, ag land, scenic vistas)

43 Is there existing physical public access to other habitats listed in question 42?

a	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 from the site	c. observation of other features can't be made from the site

Wetland MC 1-1

44. Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers) - steep hike

45 Is public access to the wetland allowed?

b?	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

does city own?

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

C	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

C	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

b	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

?	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a or NA	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

a	a. more than two	b. two	c. one

~~actually b because 10% doesn't count?~~
No- only applies to WH#1 qst.

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland MCT-1 Upper Mill Creek Tributary: Pond

Wildlife Habitat		
1	a	
2	b	
3	b	
4	b	
5	b	
6	b	
7	a	
8	a or b	
9	a	
	* INTACT *	

Sensitivity to Impact		
1	b	
2	b	
3	c	
4	b or c	
(5)	a	always true - RES ZONE
6	b	
	POT. SENSITIVE	

If not developed around, then NOT SENS.

Enhancement Potential* Not Applicable		
1		
2		
3		
4		
5		
6		
	because WH Intact	

Fish Habitat		
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1	a	
2	a	
3	b	
4	a	
5	a or b	
6	c (?)	prob. no fish here?
	INTACT	

Education		
1	b?	Does city own?
2	a	
3	a	
4	a	
5	c	
6	b	steep hike
	HAS	

Water Quality (pollutant removal)		a = surface flow; b = precip springs; c = springs
1	a, (b+c)	glacial bowl
2	a	
3	a	
4	a	? (SIZE)
5	b or c	
6	c	
	INTACT	

If 1 is b → (Close to Degraded)

Recreation		
(1)	c	No public access point w/i 250'
(2)	c	boat launching
3	b	
4	a	
5	?	fishing allowed ?
6	?	hunting allowed ?
	1+2 critical for this value.	NOT APPROPRIATE FOR

Hydrologic Control (flood control & water supply)		
1	a or b	enclosed basin
2	a	
3	a?	(SIZE)
4	a or b?	outlet
5	b	
6	c	OS/AG for 500' then Res.
7	a	
	INTACT	

Aesthetic Quality		
1	a	
2	a	
3	a	
4	a	
5	a	
6	a	
	PLEASING	

City of La Grande Wetland Assessment Summary Sheet

Wetland: MCT-1 Upper Mill Creek Tributary - Pond			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential*	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Enhancement Potential is not applicable for this wetland because Wildlife Habitat is intact.

Below MC1-1

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Outfall of MCT-1 County: Union State: OR Date: 7/22/95 Plot:
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: Intermittent drainage / outfall from MCT-1
Topographic Location:
Do Normal Circumstances exist on the site? Y N Explain:
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. Phleum pratense		FAC-
2. Dactylis glomerata		FACU
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1. Physocarpus malvaceus		NOL
2. Spiraea betulifolia		FAC
3 Crataegus douglasii		FAC
4. Symphoricarpos albus		FACU
5. Rosa canina		NOL
Tree Stratum - % total cover:		
1. Pinus ponderosa		FACU-
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/8 = 25%
Hydrophytic Vegetation Criterion Met? **YES NO**

SOILS

Mapped unit name: Matches Profile? Y N
Taxonomy: Drainage Class:
Depth Horizon Matrix Color Mottle Color, Abund., Size, On Pores/Peds? Texture, Structure

___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: Rocky, steep-sided, deep ravine
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation: — Depth to saturation: — Depth to free water:

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: channel 1' wide, no water, headwaters area.	
___Sediment Deposits	Remarks: V-shaped streambed	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES (NO)** No indicators	

DETERMINATION: Is this plot a Wetland? **YES (NO)**
Comments: no wetland
Determined by: CG / CMW *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: MCT-2 **DRAINAGE:** Mill Creek Tributary	**Field Date:** 7/22/95
Location: Northwest of City Reservoir	**Observer:** CG/CMW
Tax Map: _ **Tax Lot:** 400	**Acres:** .67
T3S R38E Sect: 18 Quarter: NE	**On-site:** Yes

General Description: MCT-2 is an intermittent drainage wetland originating at MCT-1 but culverted from there beneath road and field. The stream meanders through a 10-15 foot wide wetland. During the survey, water was flowing and was approximately 1 inch deep. The channel and surrounding wetlands and uplands are actively grazed by cattle.

NWI Classification: 100% EM

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: N 2/0

Hydrologic Source/Comments: Surface water.

Dominant Vegetation (*major dominant):

Herbs

Glyceria grandis [*maxima*], OBL
Alopecurus pratensis, FACW
Scirpus microcarpus, OBL
Festuca arundinacea, FAC-
Veronica americana, OBL

Shrubs

Trees

Boundary Information: Distinct topographic break; vegetation changes to tall fescue, chicory, mayweed chamomile, timothy, and orchard grass. Meets significance test because it provides a moderate level of water quality improvement function, and feeds into Mill Creek, a water quality limited stream.

Wetland Functions: moderate water quality. Other functions could be restored.

Features: None.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # MCT-2 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
X		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Upper Mill Creek Trib County: Union State: OR Date: 7/29/96 Plot: MCT-2
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Behind Womans house off — 2nd ave & Miller Dr; tow.
Topographic Location: grazed pasture
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 100		
*1. FEAR	30% (Festuca arundinacea)	FAC-
*2. ALPR	25% (Alopecurus pratensis)	FACW
*3. VEAM	15 (Veronica americana)	OBL
*4. GLGR	15 (Glycera grandis)	OBL
*5. SCMI	15% (Scirpus microcarpus)	OBL
6. CAST	TR (Carex stipata)	OBL
7. RAOC	TR (Ranunculus occidentalis)	FAC
8. ____		
9. ____		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: trace		
1. Rosa sp		?
2. ____		
3. ____		
4. ____		
5. ____		
Tree Stratum - % total cover: ____		
1. ____		
2. ____		
3. ____		

Remarks: 100% EM/trace SS (Tall fescue, meadow foxtail, Am. speedwell, tall mannagrass, small-fruited bulrush, sawbeaked sedge, w. buttercup)
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/5 = 80%
Hydrophytic Vegetation Criterion Met? (YES) NO
Note: all considered dominant due to mix
UPL: FEAR 80%, CIIN 5%, ANCO 5%, DAGL, TRPR

SOILS (Tall Fescue, chicory, mayweed, or bluegrass, teasel, reed clover)

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
		N2/0 Black		

___ 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

intermittent stream 10-15' wide, meanders, disturbed by grazing, water flowing 1" deep
Depth of inundation: 1" Depth to saturation: surface Depth to free water: ____

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: ____	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: CMW/CG *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland MCT-2
Int. Stream wetland
Field Date 7/22/95
trib to Mill Creek (upper)

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture		50% AG+OS	
Forest			
Developed		50% Res	
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
Other			

17 What is the wetland acreage?

b	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

~1.67 ac

18 How is wetland connected to stream, lake, or pond?

a	a. connected by surface water	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	a. yes	b. no

partially - mostly main stem Mill Creek (upper) is in 100 yr Fp

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% res
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				
Emergent	100% EM			
Scrub-shrub				
Forested				

22 How many wetland plant species are present (urban areas)?

b	a. >5	b. bet. 2 & (5)	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

b	a. woody (FO & SS)	b. emergent (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

C	a. high	b. moderate	c. low

25 Rural: 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 Urban: What percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

a	a. >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

a+b	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

Estimate area of unvegetated open water within the wetland.

d	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat Wetland MCT-2

29 What fish species are present at some time during the year? Stream, lake or pond?

c1.	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

a	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

c	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?

c-b	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

a,b	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

b	a. yes (describe)	b. no	c. unable to determine

s the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b or c	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	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

a	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

a	a. yes	b. no

hillslope

43 Is there existing physical public access to other habitats listed in question 42?

b	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 from the site	c. observation of other features can't be made from the site

Wetland MCT-2

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed?

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

b	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

b	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

b	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

b	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

c	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland MCT-2 Int. Stream Wetland; Tributary to Mill Creek (Upper)

Wildlife Habitat

1	c	
2	b c	orb - some water present
3	c	
4	c	
5	a	
6	b	
7	a	
8	a+b	
9	a	

DEGRADED

Fish Habitat

Streams and Rivers — Upper Mill Creek

1	c	
2	a	
3	c	
4	a	
5	a+b	
6	c?	

Lakes and Ponds

1		
2		
3		
4		
5		
6		

DEGRADED
but close to INTACT

Water Quality (pollutant removal)

1	a+b	
(2)	b	has to be a evid. of flooding (is in FP?)
3	a	
4	b	
5	b+c	
6	c	

(?) DEGRADED
(if flooded, would be Intact (Close))

Hydrologic Control (flood control & water supply)

1	a	
2	b	
3	b	
4	b or c	
5	b	
6	a	
7	a	

DEGRADED

Sensitivity to Impact

1	b	
2	b	
3	c	
4	b+c	
(5)	a	ZONING
6	b	

POTSENS unless delete 5 then NOT SENS.

Enhancement Potential

1	a	
2	a + c	
3	a	
4	b	
5	c	
6	b	(or a if delete SI5)

(HIGH) if ignore Col 2

Education

1	b	
2	a	
3	b	
4	b	
5	b	
6	b	

HAS

Recreation

1	b	
2	c	
3	c	
4	b	
5	b	
6	b	

POTENTIAL
but close to NOT Appropriate

Aesthetic Quality

1	c	
2	a	>50% of WL can be seen
3	a	
4	b	
5	a	
6	a	

Pleasing -
Really think this WL should be rated potentially pleasing
→ could Δ #2 to b (?)

City of La Grande Wetland Assessment Summary Sheet

Wetland: MCT-2 Mill Creek Tributary - Intermittent Stream Wetland			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality*	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Water Quality would be intact if flooded or ponded.

WETLAND SUMMARY SHEET

WETLAND: MS-1 and MS-2 **DRAINAGE:** McAllister Slough	**Field Date:** 7/22/95
Location: West of I-84 south of Buchanan Lane overpass.	**Observer:** CG/CMW
Tax Map: _ **Tax Lot:** 8400 T3S R38E Sect: 9AC	**Acres:** .85 **On-site:** Yes

General Description: MS-1 and MS-2 represent the headwaters McAllister Slough. MS-1 is a small willow thicket. MS-2 is McAllister Slough, a narrow ditch on the north end which broadens to a pond/emergent area to the south adjacent to I-84. Surface water is ponded, 6 inches deep at the south end.

NWI Classification: 10% OW, 90% EM

Mapped Soils: (37) La Grande silty clay loam

On-Site Soils: 10YR 2/1 silty clay

Hydrologic Source/Comments: This spring is the headwaters for McAllister Slough, which flows to the southeast.

Dominant Vegetation (*major dominant):

Herbs

* *Phalaris arundinacea*, FACW
* *Rorippa nasturtium-aquaticum* [*Nasturtium officinale*], OBL
Mimulus guttatus, OBL
Glyceria grandis [*maxima*], OBL
Carex species
Carex stipata, OBL
Solanum dulcamara, FAC+
Poa compressa, FACU+
Rumex crispus, FAC+
Dipsacus sylvestris, FAC
Typha latifolia, OBL
Epilobium species

Shrubs

Salix exigua, OBL

Trees

Boundary Information: Vegetation changes to Canada thistle, mustard, tarweed, and cultivated barley. Does not meet significance test because only moderate levels of function, and does not feed directly into a stream listed as water quality limited.

Wetland Functions: moderate for wildlife, water quality.

Features: None.

Jurisdictional: Yes

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # MS-1 & 2 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Willow Thicket County: Union State: OR Date: 7/22/95 Plot: MS-1

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Willow Thicket (in center); by McAllister Slough - Isolated

Topographic Location: ____

Do Normal Circumstances exist on the site? 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: ____			**Shrub/Sapling** Stratum - % total cover: ____		
1. Phalaris arundinacea		FACW	1. Salix exigua		OBL
2. Cirsium arvense		FACU+	2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum - % total cover: ____		
7.			1.		
8.			2.		
9.			3.		

Remarks: ____

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/3 = 67%

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL: Sisymbrium altissimum, Barley

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-6		10YR 2/1		Silty Clay

___ Histosol ___ Reducing Conditions (test) ___ Hi. Organic Cont. Surf. Layer

___ Histic Epipedon X Gleyed Low Chroma ___ 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 saturation: 6" Depth to free water: ____

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: CMW + CG *Fishman Environmental Services*

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: McAllister Slough County: Union State: OR Date: 7/22/95 Plot: MS-2
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: West of I-84
Topographic Location: ____
Do Normal Circumstances exist on the site? 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: ____			**Shrub/Sapling** Stratum - % total cover: ____		
*1. Phalaris arundinacea		FACW	1.		
*2. Rorippa nasturtium-aquaticum		OBL	2.		
3. Glycera sp.		FACW/OBL	3.		
4. Mimulus guttatus		OBL	4.		
5. Epilobium sp. - pink+white			5.		
6. Dipsacus sylvestris		FAC	Tree Stratum - % total cover: ____		
7. Carex sp.			1.		
8. Rumex crispus - trace		FAC	2.		
9. Typha latifolia - trace		OBL	3.		

Remarks: ____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO
UPL: Dipsacus sylvestris, Cirsium arvense, Sisymbrium altissimum, Barley

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
		10YR 2/1		

___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: ~6" Depth to saturation: Surface Depth to free water: ____

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: Red-wing bb	
___Sediment Deposits	Remarks: has been ditched	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: CMW+CG *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland MS-1+2
McAllister Slough
Field Date 7/22/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			90% ag
Forest			
Developed	10% Highway		~~10 % Highway~~
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			Ag 95%
Forest			
Developed	5% Res		~~Residential~~
Other			

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
b			

.83 + 400'x2' = ~.85 ac
(plus outside City limits → bigger than our #

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
C			

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
b		

→ how far is Cath. Ck? ~1.5 mi to old River Slough

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% Res I think
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				10% OW
Emergent	90% EM			
Scrub-shrub				
Forested				

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 (EM)	c. open water (OW)
b			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
Corb			

25 Rural: 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 Urban: 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			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
d				

*bet. = between (bold questions = field)

Fisheries Habitat Wetland MS-1, -2

29 What fish species are present at some time during the year? Stream, lake or pond?

C? or b?	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

c, b	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b	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. permanent blockage exists and alternative flow channels are not feasible

(a)

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

a	a. no	b. yes

ditched

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

b	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

I-84

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

a	a. yes	b. no

100% Ag land

43 Is there existing physical public access to other habitats listed in question 42?

b	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 from the site	c. observation of other features can't be made from the site

Wetland MS-1, -2

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers) no access

45 Is public access to the wetland allowed?

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

c	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a	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	a. yes	b. no

tires

54 If the site contains visual detractors, can they be easily removed?

a	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

b	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)?

c	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

b	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland MS-1+2 McAllister Slough

Wildlife Habitat		
1	a	
2	b	
3	b or c	interspersion
4	c	OW < .5ac
5	c	not connected to stream
6	a	
7	a	headwaters
8	b	
9	a	
		DEGRADED

(has 4 a's though)

Fish Habitat	NA	
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		

Water Quality (pollutant removal)		
(1)	b, c	if b precip + not c springs
2	a	
3	a	
4	b	
5	b	
6	c	
		INTACT

maybe degraded if springs 1° source of water

Hydrologic Control (flood control & water supply)		
1	b	
2	a	
3	b	
4	b	
5	b	
6	b	
7	a	
		DEGRADED

Sensitivity to Impact		
1	b	
2	b	
3	c	
4	b	
(5)	a	
6	b	

potentially sensitive unless delete (5) developed than not sens.

Enhancement Potential		
1	a	
2	b, c	precip via year-s seeps
3	a	(NA)
4	b	
5	c	
6	b	
		(HIGH) if ignore c only (or delete 5)

Education		
1	b	
2	b	
3	b	
4	b	
5	c	
6	b	
		HAS POTENTIAL

Recreation		
1	c	
2	c	
3	c	
4	b	
5	?	
6	b	
		NOT APPROPRIATE

Aesthetic Quality		
1	b	
2	a	
3	b	
4	a	
5	b	
6	c	I-84
		potentially pleasing

would be pleasing if noise from Freeway not noticeable —

City of La Grande Wetland Assessment Summary Sheet

Wetland: MS-1 and MS-2 McAllister Slough			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat is not applicable for this wetland.

WETLAND SUMMARY SHEET

WETLAND: RP-1 **DRAINAGE:** Grande Ronde Ditch (N of river)	**Field Date:** 7/20/95
Location: Pond in Riverside Park; east of N Spruce St	**Observer:** CG/CMW
Tax Map: _ **Tax Lot:** 5100 T2S R38E Sect: 32 Quarter: SE	**Acres:** N/A **On-site:** Yes

General Description: RP-1 is a pond located in Riverside Park. Water enters the pond in the northwest corner and exits out the northeast corner through the Nesley irrigation ditch. The pond is shallow (up to 3 feet deep) with a narrow band of emergent wetland. Black locust trees are present on the north bank and provide some shade over the pond. There is limited food and cover for wildlife: mosquito fish and snails in the pond; wood duck nest boxes are installed in adjacent trees.

NWI Classification: 95% OW, 5% EM

Mapped Soils: (67) Veazie-Voats Complex, protected
On-Site Soils: 10YR 2/1 silt loam to 6 inches then hardpan

Hydrologic Source/Comments: Grande Ronde River (gravity flow). Water temperature: 68 degrees. Pond was present in 1985 aerial. Not mapped but possibly present in 1972 aerial.

Dominant Vegetation (*major dominant):

Herbs
* *Phalaris arundinacea*, FACW
* *Iris pseudacorus*, OBL
Lolium perenne, FACU
Ranunculus repens, FACW
Poa annua, FAC
Trifolium repens, FAC
Plantago major, FACU+
mowed grass

Shrubs

Trees
Populus trichocarpa [*balsamifera*], FAC
Robinia pseudoacacia, FACU

Boundary Information: Distinct topographic break (northwest and east sides); vegetation changes from reed canarygrass, yellow iris, and creeping buttercup to black locust and mowed lawn. Does not meet significance criteria because it is excavated in an upland location and watered from an artificial source.

Wetland Functions: moderate, but Park location adds to education, recreation, and aesthetic values.

Features: Public park.

Jurisdictional: No, created in an upland.

Note: This pond has been filled in since the time of the survey. it was non-jurisdictional

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # RP-1 & 2 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; X (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity X (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL RP 1

Project #: 95052 Site: Riverside Park County: Union State: OR Date: 7/20/95 Plot: POND

Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB

Plot Location: South side of Pond

Topographic Location: Gradual slope up to UPL on S, Distinct slope on W+E, +N,

Do Normal Circumstances exist on the site? Y N Explain:

Are soils ___ vegetation ___ hydrology ___ significantly disturbed? N Explain:

POND ~100' N/S + ~70' E/W.

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:			**Shrub/Sapling** Stratum - % total cover:		
1. PHAR (Phalaris arundinacea)	5%	FACW	1.		
2. IRPS (Iris pseudacorus)	5%	OBL	2.		
3.			3.		
4.			4.		
5.			5.		
6.			Tree Stratum - % total cover:		
7.			1. POTR (Populus trichocarpa)	5%	FAC
8.			2. Pseudoacacia	5%	FACU
9.			3. Robinia		

Remarks: EM WL extends ~10' South of bank edge; Most of pond not vegetated

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/4 = 75%

Hydrophytic Vegetation Criterion Met? (YES) NO

UPLAND: Bromus sharpianus rigida, DAGL, PLMA, TRRE, RARE, LOPE, ~~POTR baby~~ Poa annua, mowed around

SOILS

Mapped unit name: Matches Profile? Y N

Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
6"		10YR2/1	—	Silt - Silt Loam
then hardpan				

___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

UPLAND: 10YR2/1 - sandy Silt - Silt Loam, few mottles

HYDROLOGY

Depth of inundation: 14-16" + → deeper in middle Depth to saturation: Depth to free water:

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: gravity flow from River; Grande Ronde Ditch	
___Sediment Deposits	Remarks: gambusia, snails. Culvert 24 or 36" concrete inflow at North.	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

UPLAND: NOT SATURATED

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

Comments: UPL Plot ~ 2' S of Pond Edge on SE side.

Determined by: CMW + CG

Fishman Environmental Services

Wetland Assessment - City of La Grande, Oregon

Wetland RP-1 Riverside Park
Field Date 7/20/95

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			mostly park
Agriculture		30%(?) Ag Land/	
Forest		Res. on W side	of Rd
Developed			
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			100%
Agriculture			
Forest			
Developed			
Other			

then 70% ag + 30% Res outside of park

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
C			

~.33 ac

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
a			

GRR, GRD (No

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
a		

- ✓ OK

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture		40% AG	
Forest			
Developed			60% RES
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	95% OW			
Emergent				(5% EM)
Scrub-shrub				
Forested				

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 (EM)	c. open water (OW)
C			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
c			

25 Rural: 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%
C			

26 Urban: 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%
C			

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~~ b			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
d				

2U

~0.31 acre

*bet. = between (bold questions = field)

Fisheries Habitat Wetland KP-1

29 What fish species are present at some time during the year? Stream, lake or pond?

b	a. salmon, trout or sensitive species	b. other fish species gambusia	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary? deeper in center

C	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

b or c	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains submerged logs, floating submerged vegetation, large rocks or boulders?

C	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water?

a	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

b	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b	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? gravity inflow? from GRR

a	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland? channelized, inflow structure

b	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent) GRR

a	a. yes	b. no

43 Is there existing physical public access to other habitats listed in question 42?

a	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 from the site	c. observation of other features can't be made from the site

Wetland KP-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

a	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed?

a	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

's there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

a	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

a? GRR?	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

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b or (a)	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

a	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

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b	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

b	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

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b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

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a	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

c	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland RP-1 Riverside Park (pond)

Wildlife Habitat		
1	c	
2	b	
3	c	
4	c	
5	a	
6	b	
7	c	
8	a	
9	c	
	DEGRADED	

Fish Habitat		
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1	c	
2	c	
3	b or c	
4	c	
5	a	
6	b	gambusia
	DEGRADED	

Water Quality (pollutant removal)		
1	a	
2	b	
3	c	
4	c	
5	c	
6	a	
	DEGRADED	

Hydrologic Control (flood control & water supply)		
1	a	
2	b	
3	c	
4	b	
5	c	
6	c	but then b + a downstream
7	a	
	DEGRADED	

Sensitivity to Impact		
1	a	
2	a	
3	a	
4	c	
5	a	
6	c	
	SENSITIVE	

Enhancement Potential		
1	a	
2	a	
3	a	
4	c	
5	c	
6	c	
	MODERATE	

? check answers ✓

Education		
1	a	
2	a	
3	b	
4	a	
5	a	
6	a	
	HAS	

Recreation		
1	a	
2	a?	boat on GRR?
3	a or b	
4	b	
5	a	
6	b	
	PROVIDES	

Aesthetic Quality		
1	c	
2	a	
3	a	
4	b	
5	b	
6	b	
	pleasing	

City of La Grande Wetland Assessment Summary Sheet

Wetland: RP-1 Riverside Park Pond (note: this wetland may not be jurisdictional)			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

WETLAND SUMMARY SHEET

WETLAND: RP-2 (Nesley Ditch) **DRAINAGE:** Irrigation Channel	**Field Date:** 7/20/95
Location: Riverside Park, east of N Spruce St	**Observer:** CG/CMW
Tax Map: _ **Tax Lot:** 5100	**Acres:** N/A
T2S R38E Sect: 32 Quarter: SE	**On-site:** Yes

General Description: RP-2 is a ditch that flows northeast out of RP-1 and northeast across Riverside Park and out of the UGB. The outlet at Fruitdale Road is screened to prevent blockage. The ditch and wetlands range from approximately 10-15 feet wide; water depth is approximately 2 feet deep. Emergent fringe wetlands are dominated by reed canarygrass. Riparian trees are scattered on banks and shade most of the ditch.

NWI Classification: 20% OW, 80% EM

Mapped Soils: (36) La Grande silt loam

On-Site Soils: 10YR 2/1 gravelly silt loam

Hydrologic Source/Comments: West end: 10 feet wide, 2 feet deep; silt bottom (culvert): 15 feet wide, 2 feet deep, rock bottom.

Dominant Vegetation (*major dominant):

Herbs
* *Phalaris arundinacea*, FACW
Ranunculus repens, FACW
Iris pseudacorus, OBL
Lolium perenne, FACU
Mentha spicata, OBL
Solanum dulcamara, FAC+
Polygonum species

Shrubs
Symphoricarpos albus, FACU
Rosa species

Trees
Populus trichocarpa [*balsamifera*], FAC
Acer platanoides, NOL
Acer saccharinum, NOL, FACW
Salix babylonica, FAC+

Boundary Information: Distinct topographic break; vegetation changes to mowed lawn, Norway maple, black locust, and silver maple. Does not meet significance criteria because excavated out of uplands.

Wetland Functions: Limited wildlife and fish habitat, limited water quality, is a public park with access; could enhance ditch vegetation.

Features: Public park.

Jurisdictional: No. Created in an upland.

Note: The portion of this ditch within Riverside Park (the only portion within the Urban Growth Boundary) was piped after the date of the wetland survey.

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # RP-1 & 2 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; X (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity X (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Riverside Park County: Union State: OR Date: 7/20/95 Plot: RP-2
Client: City of La Grande / DSL Sect. ___ Township ___ Range R38E City: La Grande or UGB
Plot Location: POND OUTLET; E of 2nd culvert (1st @ restroom + 2nd @ playset)
Topographic Location: Immediately S. of water's edge
o Normal Circumstances exist on the site? Y N Explain: ___
Are soils ___ vegetation ___ hydrology ___ significantly disturbed? N Explain: ___

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ___		
1. Phalaris arundinacea	40	FACW
2. Iris pseudacorus	20	OBL
3. Ranunculus repens	10	FACW
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ___		
1. Rosa	trace	
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ___		
1. Acer platanoides	30	NOL
2. (Norway Maple, rooted upslope)		
3.		

Remarks: OW present
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/4 = 75%
Hydrophytic Vegetation Criterion Met? (YES) NO
UPL: Poa annua + trees; some Salix babylonica, Populus trichocarpus, Robinia pseudoacacia, Acer saccharinum (Silver Maple).

SOILS
Mapped unit name: ___ Matches Profile? Y N
Taxonomy: ___ Drainage Class: ___

epth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
6"		10YR 2/1	—	gravelly Clayey Silt Loam

___ Histosol ___ Reducing Conditions (test) ___ Hi. Organic Cont. Surf. Layer
___ Histic Epipedon X Gleyed Low chroma ___ 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: ___
Hydric Soil Criterion / Indicators Met? (YES) NO
UPL: Sandy Clayey Silt, 10YR 2/1, Not saturated

HYDROLOGY
Depth of inundation: 24" in center Depth to saturation: Surface Depth to free water: ___

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: Irrigation District	
___ Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

Channel 15' wide, fairly well defined

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ___
Determined by: ___ *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: SR-1 **DRAINAGE:** Spence Reservoir (Davidson Lake)	**Field Date:** 7/21/95
Location: Gilchrist Drive	**Observer:** CMW/CG/RK
Tax Map: _ **Tax Lots:** 1700 and 1901	**Acres:** 9.00
T3S R38E Sect: 17 Quarter: NE	**On-site:** Yes

General Description: Spence Reservoir (Davidson Lake) was constructed many years ago and used by the Bureau of Land Management as an irrigation reservoir (pers. comm. Mr. Wheaton). Mr. Davidson dug the reservoir deeper (approximately 10 feet) and made the island in 1973 to 1975. The reservoir was once known as Slaughters Pond.

NWI Classification: 65% OW, 20% EM, 15% SS

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: N 2/0 clay

Hydrologic Source/Comments: Groundwater and surface inflow from intermittent swale, seeps and saturated wetlands. Reservoir berm has sprung some leaks due to muskrat activity.

Dominant Vegetation (*major dominant):

Herbs
Eleocharis palustris, OBL
Eleocharis acicularis, OBL
Carex aquatilis, OBL
Alisma plantago-aquatica, OBL
Mimulus guttatus, OBL
Poa compressa, FACU+
Gnaphalium palustre, FAC+
Ranunculus aquatilis, OBL
Sagittaria latifolia, OBL

Shrubs
Salix exigua, OBL
Crataegus douglasii, FAC

Trees

Boundary Information: Distinct topographic break. The interconnected series of wetlands adjacent to Spence reservoir all meet the locally significant wetland criteria because of the high level of functions for fish, wildlife, water quality improvement, and hydrologic control.

Wetland Functions: Hydrologic control, wildlife habitat, water quality; also aesthetic values.

Features: Excellent wildlife habitat (deer, amphibian breeding); diverse vegetation/mosaic, connected to large undeveloped forest and grazing lands. Stocked with bass.

Jurisdictional: Yes, based on natural water source. (DSL also regulates artificial ponds larger than one acre; reservoir is larger).

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # SR-1, 2, 3, 4, 5, & 6 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: _X___ *diverse* wildlife habitat, _X___ *intact* fish habitat, _X___ *intact* water quality, or _X___ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Spencer Res. County: Union State: OR Date: 7/21/95 Plot: SR-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: At SE end of reservoir
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Eleocharis palustris		OBL
2. Eleocharis acicularis		OBL
3. Carex aquatilis		OBL
4. 1 Mimulus sp.		
5. Poa compressa		FACU+
6. Gnaphalium palustre		FAC+
7. Alysma plantagico-aquatica		OBL
8. Sagittaria latifolia	Trace	OBL
9. Ranunculus aquatilis	Trace	OBL

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. Salix sp.		prob OBL
2. Crataegus douglasii		FAC
3. ____		
4. ____		
5. ____		
Tree Stratum - % total cover: ____		
1. ____		
2. ____		
3. ____		

Remarks: 65-70% OW / 20% EM / 10-15% SS
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 7/8 = 88%
Hydrophytic Vegetation Criterion Met? (YES) NO
VPL: Cirsum arvense + Rosa curved probably canina

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
		N2/0		clay
				gravels at surface

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X 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: Bermed on N side
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: ? looks deep Depth to saturation: 0" @ inflow from culvert from SR-2 Depth to free water: ____

1° Indicators	2° Indicators	2° Indicators
X 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: 18" culvert inflow from upstream	
___Sediment Deposits	Remarks: Bullfrogs	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: CMW, CG + RK *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland SR-1, -2, -3, -4, -5, -6

Field Date 7/21/95

Spence Reservoir + Assoc. EM Wls Seeps

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			SR1 90% AG/OS
Forest			
Developed	SR1 10% RES		
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			80% AG
Forest			
Developed		20% RES	
Other			

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
a			

~9ac Res & (SR-1) + ~~9~~ 1ac SR3,4,6 1.5ac SR5 (2.5ac SR2 - included?)

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	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		

Spence Res could be considered enclosed basin -

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
Other			

60% 9 ac OW = 5.4 ac
90% 14.5 EM = 13.05 > 14.
20% 9 ac EM = 1.8
20% 9 ac SS = 1.8 > 3.
10% 14.5 ac SS = 1.45
(or +4.5) 23.5ac

NOTE: ACREAGE APPROX; will not change answers to 17, 28

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		SR1 60% OW		(TOTAL = 14% SS)
Emergent	2-6 ~90% EM		SR1 20% EM	
Scrub-shrub	(TOTAL = 63% EM)	(TOTAL = 23% OW)		SR1 20% SS → 2-6 ~10% SS
Forested				

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 (EM)	c. open water (OW)
b			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
b to a			

25 Rural: 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 Urban: 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			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
a				

~9ac x 60% = 5.4ac

*bet. = between (bold questions = field)

Wetland SR-1, -2, -3, -4, -5, -6

Fisheries Habitat

29 What fish species are present at some time during the year? Stream, lake or pond?

? a or b	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

a	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

b	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains submerged logs, floating submerged vegetation, large rocks or boulders?

b to a	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water?

c, b, + a	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps	– ?

37 Is there evidence of flooding or ponding during a portion of the growing season?

a	a. yes (describe)	b. no	c. unable to determine	in reservoir (SR-1) + in SR5 (Goosepond) - bermed but floods

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

b or a?	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow	Reservoir gated

39 If the primary source of water is surface flow, is the inflow restricted?

a	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

a	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

Wonderful view of valley, Hills etc. + ag land

a	a. yes	b. no

43 Is there existing physical public access to other habitats listed in question 42?

b	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 from the site	c. observation of other features can't be made from the site

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility? Wetland SR-1, -2, -3, -4, -5, -6

a or b	a. no	b. yes	(list physical barriers) Can drive along s. berm of SR-1

45 Is public access to the wetland allowed?

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

b or c	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

↳ or c? — Not public

Recreation

47 Is the wetland accessible by boat?

a	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water (not public)	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

b	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

— only around bottom (N. end) of Reservoir (SR-1)
— rest are deer trails

49 Is fishing allowed at the wetland or adjacent water body?

a-?	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

Esthetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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)? SR-4 has powerlines, 4+6 have some traffic

a	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a-b	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

a	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland SR-1,2,-3,-4,-5,-6 Spencer Reservoir + Hillside Seeps

Wildlife Habitat		
1	a	
2	b	
3	a to b	
4	a	
5	a	
6	a	
7	a	
8	a+b	
9	a	
	INTACT	

Fish Habitat		
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1	a	
2	a to b	
3	b	
4	a	
5	a+b	
6	a or b?	
	INTACT	

Water Quality (pollutant removal)		
1	a③, b③+c①	
2	a	
3	a	
4	a	
5	b+c	
6	c	
	INTACT except if #1 = C then degraded –	

Hydrologic Control (flood control & water supply)		
1	a	SR-1 is enclosed basin C:
2	a	
3	a	
4	(a or b?	
5	b	
6	b	
7	a	
	INTACT	

Sensitivity to Impact		
1	b	
2	b	
3	c	
4	b+c	
(5)	a	
6	b	
	POTENT. SENS unless delete SI #5 then NOT SENS.	

Enhancement Potential * NA due to		
1		
2		
3		
4		
5		
6		
	Intact WH	

Education		
1	b	
2	a	
3	a	
4	b	
5	b (or c → not public access) - ?	
6	a or b	(can drive along berm)
	HAS	

Recreation		
1	b (or c)	see ED #5
2	a	(on-site; not public)
3	b	
4	a	
5	a?	fishing allowed?
6	b	
	PROVIDES	

Aesthetic Quality		
1	a	
2	a-b	
3	a	
4	a	
5	a	
6	a	
	PLEASING	

City of La Grande Wetland Assessment Summary Sheet

Wetland: SR-1, SR-2, SR-3, SR-4, SR-5 and SR-6 Spence Reservoir and Hillside Seeps			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential*	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Enhancement Potential is not applicable for this wetland because Wildlife Habitat is intact.

WETLAND SUMMARY SHEET

WETLAND: SR-2 **DRAINAGE:** Spence Reservoir (Davidson Lake)	**Field Date:** 7/21/95
Location: Southeast of Spence Reservoir, above reservoir, near access road	**Observer:** CMW
Tax Map: _ **Tax Lot:** _ T3S R38E Section 17BD, Tax Lot 800 Section 17CA, Tax Lot 201	**Acres:** 14.50* **On-site:** Yes

General Description: SR-2 drains into Spence Reservoir (Davidson Lake). SR-2 is a fairly flat field with a 5 foot wide swale. Residences are located up above field. Drainage comes out of hills to south; area dominated by meadow foxtail. Sedge species present in wetter portions of field, in swale.

NWI Classification: 100% EM

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: N 2/0 clay

Hydrologic Source/Comments: Hillslope seepage, surface runoff.

Dominant Vegetation (*major dominant):

Herbs

Juncus acuminatus, OBL,
Juncus ensifolius, FACW
Alopecurus pratensis, FACW

Shrubs

Trees

Boundary Information: Distinct topographic break to the east and west. Vegetation changes to rose, black hawthorn, slender cinquefoil, low gumweed, timothy, common yarrow, Spanish clover, and snowberry. The interconnected series of wetlands adjacent to Spence reservoir all meet the locally significant wetland criteria because of the high level of functions for fish, wildlife, water quality improvement, and hydrologic control.

Wetland Functions: water quality, hydrologic control, wildlife habitat

Features: Open space and aesthetic value.

Jurisdictional: Yes

* The 14.50 acre size refers to the series of wetlands associated with Spence Reservoir (Davidson Lake) – SR-2, -3, -4, -5 and -6.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: SR-2 County: Union State: OR Date: 7/21/95 Plot: SR-2

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Upslope of Spencer Reservoir - just by culvert

Topographic Location: ____

Do Normal Circumstances exist on the site? 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: ____			**Shrub/Sapling** Stratum - % total cover: ____		
1. Juncus acuminatus/ensifolius?	10		1.		
*2. Alopecurus pratensis	90	FACW	2.		
3.			3.		
4.			4.		
5.			5.		
6.			Tree Stratum - % total cover: ____		
7.			1.		
8.			2.		
9.			3.		

Remarks: All Alopecurus pratensis upslope / Defined by topo boundary on

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100% FACW.

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL: Rosa canina(?), Crataegus douglasii

SOILS N of Road: Potentilla gracilis, Grindelia nana, Galium sp., Phleum pratense, Achillea

Mapped unit name: ____ Matches Profile? Y N millefolium, Lotus

Taxonomy: ____ Drainage Class: purshiana, Sisymbrium altissimum

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-12		N2/0		

___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: Flat field w/ 5' swale

Hydric Soil Criterion / Indicators Met? YES NO

HYDROLOGY

Depth of inundation: ____ Depth to saturation: Moist@8" Depth to free water: ____

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 comes out of Hills	
___Sediment Deposits	Remarks: ____	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO in spring	

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

Comments: ____

Determined by: CMW *Fishman Environmental Services*

City of La Grande Wetland Assessment Summary Sheet

Wetland: SR-1, SR-2, SR-3, SR-4, SR-5 and SR-6 Spence Reservoir and Hillside Seeps			
Function / Value	**Descriptor**		
Wildlife Habitat	**Intact**	Impacted or Degraded	Lost or Not Present
Fish Habitat	**Intact**	Impacted or Degraded	Lost or Not Present
Water Quality	**Intact**	Impacted or Degraded	Lost or Not Present
Hydrologic Control	**Intact**	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	**Potentially Sensitive to Future Impacts**	Not Sensitive to Future Impacts
Enhancement Potential*	Little	Moderate	High
Education	**Has Educational Uses**	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	**Provides Recreational Opportunities**	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	**Considered Pleasing**	Considered to be Potentially Pleasing	Not Pleasing

■ Wetland function / value descriptor

*Enhancement Potential is not applicable for this wetland because Wildlife Habitat is intact.

WETLAND SUMMARY SHEET

WETLAND: SR-3 **DRAINAGE:** Spence Reservoir (Davidson Lake) **Field Date:** 7/21/95

Location: Below and northeast of Spence Reservoir **Observer:** CG/CMW/RK

Tax Map: _ **Tax Lot:** _ **Acres:** 14.50*
T3S, R38E, Section 17, Tax Lot 1901; Section 17 BA, Tax Lots 200, 400, 500, 600, 700, 800 and 900; Section 17BD, Tax Lots 100, 600 and 601 **On-site:** Yes

General Description: SR-3 consists of a large emergent area with springs and channels created by subsurface and surface flow from Spence Reservoir (Davidson Lake). There are three flowing channels with associated wet/semi-wet meadows. Surrounding shrubs are primarily black hawthorn. The seeps are located on a terraced slope above a residential area. Vacant land and a few residences are located above the reservoir. SR-3, SR-4, and SR-6 are very similar hillside seep wetlands.

NWI Classification: 100% EM

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: N 2/0 clay over 10YR 3/1 clay

Hydrologic Source/Comments: Seep (below reservoir) and overland flow.

Dominant Vegetation (*major dominant):

Herbs
**Alopecurus pratensis*, FACW
Juncus acuminatus, OBL
Juncus effusus, FACW
Typha latifolia, OBL

Shrubs
Crataegus douglasii, FAC

Trees

Boundary Information: Distinct topographic break; vegetation changes to black hawthorn, snowberry, slender cinquefoil, western blue flag, clustered rose, Spanish clover, and Canada thistle. The interconnected series of wetlands adjacent to Spence reservoir all meet the locally significant wetland criteria because of the high level of functions for fish, wildlife, water quality improvement, and hydrologic control.

Wetland Functions: High wildlife habitat , water quality; also aesthetics.

Features: springs, diverse native flora.

Jurisdictional: Yes

* The 14.50 acre size refers to the series of wetlands associated with Spence Reservoir (Davidson Lake) – SR-2, -3, -4, -5 and -6.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: SR-3 County: Union State: OR Date: 7/21/95 Plot: SR-3

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Below reservoir on downhill slope

Topographic Location: ____

Do Normal Circumstances exist on the site? Y N Explain: ____

Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
*1. Alopecurus pratensis	90	FACW
2. Juncus acuminatus/ ensifolius ?	10	OBL/FACW
3.		
4. Juncus effusus		FACW
5. Typha latifolia	Trace	OBL
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
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

VPL: Crataegus douglasii w/ Symphoricarpos albus

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-10		N 2/0		Clay
10-16		10YR 3/1		Clay

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer

___Histic Epipedon X Gleyed low chroma ___Organic Streaking

___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan

___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Vertical Cracks

Hydric Soil Criterion / Indicators Met? (YES) NO

SOIL IN VPL: 10YR 2/1 clay w/ 7.5YR 3/4 mottles

HYDROLOGY

Depth of inundation: — Depth to saturation: — Depth to free water: —

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

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

Comments: ____

Determined by: CMW RK CG *Fishman Environmental Services*

City of La Grande Wetland Assessment Summary Sheet

Wetland: SR-1, SR-2, SR-3, SR-4, SR-5 and SR-6 Spence Reservoir and Hillside Seeps			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential*	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Enhancement Potential is not applicable for this wetland because Wildlife Habitat is intact.

WETLAND SUMMARY SHEET

WETLAND: SR-4 **DRAINAGE:** Spence Reservoir (Davidson Lake)	**Field Date:** 7/21/95
Location: Southwest of Gekeler Lane / 12th St	**Observer:** CMW
Tax Map: _ **Tax Lot:** _	**Acres:** 14.50*
T3S R38E Section 8CD, Tax Lots 400, 600, 700 and 800	**On-site:** Yes

General Description: SR-4 is a continuation of SR-3, with a wet swale drainage downstream of meadows, residences and "Goss Pond." This area is dominated by baltic rush, meadow foxtail, tapered rush, Watson's willow-herb, and broad-leaf cattail. A small artificial pond is located downslope behind a residence; it is approximately 20 feet in diameter.

NWI Classification: 95% EM, 5% SS

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: N 2/0 clay

Hydrologic Source/Comments: Seeps/runoff from Spence Reservoir and overflow from "Goss Pond."

Dominant Vegetation (*major dominant):

Herbs

Juncus balticus, FACW+
Alopecurus pratensis, FACW
Juncus acuminatus, OBL
Epilobium watsonii [*ciliatum*], FACW-
Typha latifolia, OBL
Dipsacus sylvestris, FAC

Shrubs

Boundary shrubs: *Ribes aureum*, FAC+, *Crataegus douglasii*, FAC, *Berberis aquifolium*, NOL, "plumbrush" and others

Trees

Boundary Information: Vegetation changes to cornflower, morning glory, meadow foxtail, and mountain tarweed. Gradual slope on east, steep on west. The interconnected series of wetlands adjacent to Spence reservoir all meet the locally significant wetland criteria because of the high level of functions for fish, wildlife, water quality improvement, and hydrologic control.

Wetland Functions: Wildlife habitat, water quality.

Features: Native flora.

Jurisdictional: Yes

* The 14.50 acre size refers to the series of wetlands associated with Spence Reservoir (Davidson Lake) – SR-2, -3, -4, -5 and -6.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: SR-4 County: Union State: OR Date: 7/21/95 Plot: SR-4

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: outflow from Goss Pond (SR-5) + Spencer Reservoir

Topographic Location: S of entrance gravel road to Goss Pond, under powerline

Do Normal Circumstances exist on the site? Y N Explain: ____

Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 110%		
*1. Alopecurus pratensis	30	FACW
*2. Juncus balticus	40	FACW+
*3. Juncus acuminatus (?)	20	OBL
4. Epilobium watsonii	15	FACW+
5. Typha latifolia	5	OBL
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: Gradual slope on E, steep on west; more Alopecurus pratensis N of rd.

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL: Madia glomerata, Grindelia nana, Centaurea cyanus, Calystegia sepia

SOILS Ribes aureum (?) on west.

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-2		N 2/0		clay gravelly

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer

___Histic Epipedon X 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: 2-4" Depth to saturation: Surface Depth to free water: ____

1° Indicators	2° Indicators	2° Indicators
X 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: Apparently culverts ? Could not verify.	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

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

Comments: Nice WL swale

Determined by: CMW *Fishman Environmental Services*

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Glazelot County: Union State: OR Date: 10/27/95 Plot: SR-4A
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: North of SR-4 + road - field bet. road + Glaze house (1510 Gekeler Lane) - In center of wetland
Topographic Location:
Do Normal Circumstances exist on the site? Y (N) Explain: fall
Are soils____ vegetation____ hydrology____ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. Alopecurus pratensis		FACW
2. Dipsacus sylvestris		FAC
3. Juncus acuminatus		OBL
4. few Alisma plantago-aquatica		OBL
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:		
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

SOILS

Mapped unit name: 51D Ramo V. St. SiCL Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
		N2/0		Silty Clay

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X Gleyed low chroma ___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: 1/2 to several" Depth to saturation: Surface Depth to free water:

1° Indicators	2° Indicators	2° Indicators
X 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:	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Straight-forward to delineate; (see also next p. sample plot)
Determined by: DF + CMW ↳ boundary ~5' E of fence on E ↳ on west slope + veg + soil changes

Fishman Environmental Services

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Glazelot County: Union State: OR Date: 10/27/95 Plot: SR-4B
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: East of SR4A & E. of fence
Topographic Location: slight upslope
Do Normal Circumstances exist on the site? Y N Explain:
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. Achillea millefolium		FACU
2. Lomatium sp.		?
3. Epilobium sp.		?
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): ____ = ____
Hydrophytic Vegetation Criterion Met? YES NO
Veg on W. side of wetland changes to Agropyron intermedium (NOL), Berberis aquifolium (NOL), Crataegus douglasii (FAC) + "plumbrush" (?)

SOILS

Mapped unit name: Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-5		10YR 2/1		
5+		10YR 3/2	—	crumbly Silt Loam

___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 saturation: — Depth to free water: —

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 indicators	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES (NO)	

This boundary (on east) determined by soils, + hydrol.

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments: Boundary on west define by slope, Veg., + soils
Determined by: DF + CMW

Fishman Environmental Services

City of La Grande Wetland Assessment Summary Sheet

Wetland: SR-1, SR-2, SR-3, SR-4, SR-5 and SR-6 Spence Reservoir and Hillside Seeps			
Function / Value	**Descriptor**		
Wildlife Habitat	**Intact**	Impacted or Degraded	Lost or Not Present
Fish Habitat	**Intact**	Impacted or Degraded	Lost or Not Present
Water Quality	**Intact**	Impacted or Degraded	Lost or Not Present
Hydrologic Control	**Intact**	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	**Potentially Sensitive to Future Impacts**	Not Sensitive to Future Impacts
Enhancement Potential*	Little	Moderate	High
Education	**Has Educational Uses**	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	**Provides Recreational Opportunities**	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	**Considered Pleasing**	Considered to be Potentially Pleasing	Not Pleasing

■ Wetland function / value descriptor

*Enhancement Potential is not applicable for this wetland because Wildlife Habitat is intact.

WETLAND SUMMARY SHEET

WETLAND: SR-5 **DRAINAGE:** Spence Reservoir (Davidson Lake)	**Field Date:** 7/21/95
Location: "Goss Pond," north of Spence Reservoir	**Observer:** CMW
Tax Map: _ **Tax Lot:** _	**Acres:** 14.50*
T3S R38E Sect: 17, Tax Lots 1800 and 1901, Section 17BA, Tax Lot 700	**On-site:** Yes

General Description: "Goss Pond" has been excavated (personal communication Mr. Tony Hamilton) and is dominated by creeping spikerush, common downingia, needle spikerush, pepperwort, and American water plantain (all obligate wetland species). Pond is similar to other seepage catch basins in the southwest Urban Growth Boundary (SR-2, SR-3, SR-4, and SR-6), except that it has been deepened and is dominated by wetland species.

NWI Classification: 100% EM (probably 100% ponded in May/June)

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: N 2/0 clay

Hydrologic Source/Comments: Groundwater seeps from slope below Spence Reservoir. Bermed but overflows in winter and spring.

Dominant Vegetation (*major dominant):

Herbs
Eleocharis palustris, OBL
Downingia elegans, OBL
Eleocharis acicularis, OBL
Marsilea vestita, OBL
Alisma plantago-aquatica, OBL

Shrubs

Trees

Boundary Information: Gradual slope; berms on east and west. Vegetation changes to mountain tarweed, sweetbriar rose, snowberry, and Canada goldenrod. The interconnected series of wetlands adjacent to Spence reservoir all meet the locally significant wetland criteria because of the high level of functions for fish, wildlife, water quality improvement, and hydrologic control.

Wetland Functions: Hydrologic control, water quality, wildlife habitat, some frogs and water snakes.

Features: Diverse native vegetation, open water in early spring.

Jurisdictional: Yes. Excavated in a wetland/spring area.

* The 14.50 acre size refers to the series of wetlands associated with Spence Reservoir (Davidson Lake) – SR-2, -3, -4, -5 and -6.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Gossport County: Union State: OR Date: 9/21/95 Plot: SP-5

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: ____

Topographic Location: ____

Do Normal Circumstances exist on the site? Y N Explain: ____

Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: 2 horses graze, drink water

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Eleocharis palustris		OBL
2. Alysma plantago-aquatica		OBL
3. Downingia elegans		OBL
4. Marsilea vestita		OBL
5. Eleocharis acicularis		OBL
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: ____

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): ____ = 100%

Hydrophytic Vegetation Criterion Met? (YES) NO

UPL to E: Madia glomerata, Rosa eglanteria, Symphoricarpos albus, Crataegus douglasii, Solidago canadensis.

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-12		N 2/0		stiff clay

___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: Has been scraped out

Hydric Soil Criterion / Indicators Met? (YES) NO

UPL: gradual slope

HYDROLOGY ~150x200' EM marsh

Depth of inundation: 4" in center Depth to saturation: ____ Depth to free water: ____

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: Appears to seep from Spencer Reservoir (or springs)?	
___Sediment Deposits	Remarks: ____	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

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

Comments: ~~but may not be regulated?~~

Determined by: CMW w/ Tony Hamilton *Fishman Environmental Services*

City of La Grande Wetland Assessment Summary Sheet

Wetland: SR-1, SR-2, SR-3, SR-4, SR-5 and SR-6 Spence Reservoir and Hillside Seeps			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential*	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Enhancement Potential is not applicable for this wetland because Wildlife Habitat is intact.

WETLAND SUMMARY SHEET

WETLAND: SR-6 **DRAINAGE:** Spence Reservoir (Davidson Lake)	**Field Date:** 7/22/95
Location: west of 12th St, south of Gekeler Lane.	**Observer:** CMW/CG
Tax Map: _ **Tax Lot:** _	**Acres:** 14.50
T3S R38E Section 17BA, Tax Lot 900 and Section 17BD, Tax Lots 100 and 600	**On-site:** Yes

General Description: SR-6 is part of the seepage area coming down the slopes in the southern part of the Urban Growth Boundary, and is directly connected with SR-3 and SR-4. It is dominated by broad-leaf cattail, Baltic rush, meadow foxtail, water sedge, common large monkey-flower, dagger-leaf rush, and black hawthorn.

NWI Classification: 90% EM, 10% SS

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: N 2/0 clay

Hydrologic Source/Comments: Seep, springs.

Dominant Vegetation (*major dominant):

Herbs
Typha latifolia, OBL
Juncus balticus, FACW+
Alopecurus pratensis, FACW
Carex aquatilis, OBL
Mimulus guttatus, OBL
Juncus ensfolius, FACW
trace *Boisduvalia* species, FACW+/-

Shrubs
Crataegus douglasii, FAC

Trees

Boundary Information: Vegetation changes to smooth brome and other grasses; boundary defined by presence of saturated soils. The interconnected series of wetlands adjacent to Spence reservoir all meet the locally significant wetland criteria because of the high level of functions for fish, wildlife, water quality improvement, and hydrologic control.

Wetland Functions: water quality, medium wildlife habitat because of residences nearby.

Features: Native flora.

Jurisdictional: Yes

* The 14.50 acre size refers to the series of wetlands associated with Spence Reservoir (Davidson Lake) – SR-2, -3, -4, -5 and -6.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: SR-6 County: Union State: OR Date: 7/22/95 Plot: SR-6
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: Downhill from SR-3; Art Steffen's house, w/ Art
Topographic Location:
Do Normal Circumstances exist on the site? Y N Explain:
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. Typha latifolia		OBL
2. Juncus balticus		FACW+
3. Alopecurus pratensis		FACW
4. Carex aquatilis		OBL
5. Mimulus sp.		
6. Juncus ehsifolius		FACW
7. Boisduvalia sp.	trace	FACW/H-
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1. Crataegus douglasii		FAC
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:		
1.		
2.		
3.		

Remarks: 90% EM / 10% SS
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): ____ = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO

SOILS

Mapped unit name: Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
		N2/0		clay

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X 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 seep, springs
Depth of inundation: Depth to saturation: surface in some areas Depth to free water:

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:	
X Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMW + CG w/ Art Steffen *Fishman Environmental Services*

City of La Grande Wetland Assessment Summary Sheet

Wetland: SR-1, SR-2, SR-3, SR-4, SR-5 and SR-6 Spence Reservoir and Hillside Seeps			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential*	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Enhancement Potential is not applicable for this wetland because Wildlife Habitat is intact.

WETLAND SUMMARY SHEET

WETLAND: T-1 **DRAINAGE:** Taylor Creek (Big and Little)	**Field Date:** 7/21/95
Location: Sunny Hills Park	**Observer:** CG/CMW/RK
Tax Map: _ **Tax Lots:** See Below T3S R38E Sect: 17	**Acres:** 2.30 **On-site:** No

General Description: T-1 is a broad emergent wetland located in the vicinity of the confluence of Big Taylor and Little Taylor Creeks and a runoff channel. Access was not permitted on-site but the site was viewed from Sunny Hills Park (Gemini Drive) and Scorpio Street. Vegetation in disturbed areas at the south end of the park and south of the park are dominated by cattail, meadow foxtail, soft rush, perennial ryegrass, and teasel. Wetland vegetation viewed from Scorpio Street included water sedge, dagger-leaved rush, soft rush, and meadow foxtail. Drains to Gekeler Lane Ditch and then east.

NWI Classification: 90% EM, 10% SS
Mapped Soils: (54C) Ramo Variant silt loam, 2-12% slopes
On-Site Soils: No access; N 2/0 silty clay in Park grounds.
Hydrologic Source/Comments: surface runoff, Big and Little Taylor Creeks, seeps.

Dominant Vegetation (*major dominant):

Herbs
Typha latifolia, OBL
Alopecurus pratensis, FACW
Juncus effusus, FACW
Lolium perenne, FACU
Trifolium dubium, NOL
Carex aquatilis, OBL
Juncus ensifolius, FACW
Carex species

Shrubs
Crataegus douglasii, FAC
and others?

Trees

Boundary Information: Vegetation changes to teasel, tall oatgrass, mowed lawn, yellow clover, timothy, scotch thistle, Kentucky bluegrass, and slender cinquefoil. Big Taylor, Little Taylor, and Sunnyhills Park were evaluated as one wetland unit because of their connectivity. The complex meets the significance criteria based on hydrologic control and water quality improvement functions.

Wetland Functions: hydrologic control, water quality, moderate wildlife habitat and aesthetics.

Features: Sunny Hills Park

Jurisdictional: Yes
Section 17AA, Tax Lots 500 and 600
Section 17AB, Tax Lots 3800, 3900, 4100, 4200, 4300, 4400, 6000, 6100, 7000, 7100, 7200, 7300, 7400, 9300, 9400, 9500, 9700, 9800, 10200, 10500, 10600, 10700, 11000, 11100, 11200, 11300, 11400 and 11500
Section 17AC, Tax Lots 200, 300, 7300, 7400

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # T-1 **Locally Significant: Yes**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
X		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, __X__ *intact* water quality, or __X__ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

NO ACCESS

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Sunny Hills Park County: Union State: OR Date: 7/21/95 Plot: T-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: in park in mowed grass (5' from edge), N of storm ditch
Topographic Location: Note: On-site sampling of park - for soils.
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Lolium perenne		FACU
2. Carex sp.		FAC/wetter
3. Alopecurus pratensis		FACW
4. Juncus effusus		FACW
5. Lactuca serriola		FACU
6. Trifolium dubium		UPL
7. Poa pratensis?		FAC
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: TO SOUTH: Typha latifolia, Juncus effusus, Alopecurus pratensis,
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/7 = 57%
Hydrophytic Vegetation Criterion Met? (YES) NO Phleum pratense, Epilobium watsonii, Dipsacus sylvestris.

SOILS

UPL: Topo break to South, Trifolium dubium fallout.
Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-14		N 2/0		Clay
			0-6 silt'er, less stiff	

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X 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: Note: Park sampled, not actual site
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: ____ Depth to saturation: 0-4" Depth to free water: ____

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: Possibly irrigated this a.m.	
___Sediment Deposits	Remarks: Amy remarked hydrology is wet in spring.	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: ____
Determined by: CMW/CG/RK w/ Amy Drought *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland T-1
Taylor Creek
Field Date 7/21/95
Sunny Hills Park

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture		30% AG	
Forest			
Developed			70% RES
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture		50% AG	
Forest			
Developed		50% RES	
Other			

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
b			

~ 2.3ac or more

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
a			

piped

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
a		

all

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			100% RES
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				
Emergent	90% EM 90%			
Scrub-shrub				10% SS
Forested				

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 (EM)	c. open water (OW)
b			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
c			

25 Rural: 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%
b			

26 Urban: 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			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
d				

*bet. = between (bold questions = field)

Fisheries Habitat Wetland T-1

29 What fish species are present at some time during the year? Stream, lake or pond?

C ?	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

a+b	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps	springs?

37 Is there evidence of flooding or ponding during a portion of the growing season?

C	a. yes (describe)	b. no	c. unable to determine	— no access

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

? b	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	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible	culverts

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

b	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

b	a. yes	b. no	— ag land on E - can't see from Sunny Hills Park.

43 Is there existing physical public access to other habitats listed in question 42?

C or b	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 from the site	c. observation of other features can't be made from the site

b: perhaps from east side could see Ag land

Wetland T-1

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed?

c	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

a	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Sunny Hills Park

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

b	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

b	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

Aesthetics

Rural: what is the extent of visual contrast with the surrounding landscape?

b	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

b	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

—	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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 or b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

b	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

b	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland T-1 Taylor Creek - Sunnyhills Park - no access

Wildlife Habitat		
1	b	
2	c	
3	c	
4	c	
5	a	
6	a	
7	a	
8	c	
9	a	
	DEGRADED	

Fish Habitat	NA	
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		

Water Quality (pollutant removal)		
1	a+b	
2	a or c	unable to determine - prob (a)
3	a	
4	b	
5	a	
6	c	
	DEGRADED	

Hydrologic Control (flood control & water supply)		
1	a	
2	a (or c)	see WQ #2
3	b	
4	b?	
5	b	
6	a+b	
7	a	
	INTACT	

Floods - does this make sense?

Sensitivity to Impact		
1	a	
2	b	
3	c	
4	a	
5	a	
6	b	
	POTENTIALLY SENSITIVE	

Enhancement Potential		
1	a	
2	a + c	
3	a	
4	b	
5	c	
6	b	
	MODERATE ~~HIGH~~	if ignore c on #2 (+ delete 5)

Education		
(1)	c	no access allowed
2	a	
3	b	
4	(b or) c	?
5	a	
6	b	
	NOT APPROPRIATE	*

#1: If allowed, then POTENTIAL

Recreation		
1	a	
2	c	
3	b	
4	b	
5	b	
6	b	
	POTENTIAL TO PROVIDE	

Aesthetic Quality		
1	b	
2	b	
3	a	
4	b	
5	a	
6	a or b	
	POTENTIALLY PLEASING	

City of La Grande Wetland Assessment Summary Sheet

Wetland: T-1 Taylor Creek - Sunny Hills Park			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat is not applicable for this wetland.
*Education Potential present if access is allowed.

Fishman Environmental Services

WETLAND SUMMARY SHEET

WETLAND: T-2 **DRAINAGE:** Taylor Creek	**Field Date:** 10/27/95
Location: Wetland spring south of Gekeler Lane & west of 18th	**Observer:** CMW/DF
Tax Map: _ **Tax Lot:** 502	**Acres:** .02
T3S R38E Sect: 17AA	**On-site:** Yes

General Description: T-2 is a small approximately 600 square foot emergent wetland spring located near Taylor Creek and the floodway for Taylor Creek. Vegetation of the spring included cattail, an aquatic buttercup, curly dock, duckweed, soft rush and teasel. The surrounding pasture is grazed by horses and part of the field is beneath power lines. This spring is notable because it has developed a raised surface, approximately 1.5 feet higher than the surrounding pasture. Several springs are located south and east (see T-3).

NWI Classification: 100% EM

Mapped Soils: (54C) Ramo Variant silt loam, 2-12% slopes

On-Site Soils: N 2/0 silty clay over 10YR 2/1 silty clay loam

Hydrologic Source/Comments: Groundwater seep / spring.

Dominant Vegetation (*major dominant):

Herbs

**Typha latifolia*, OBL
Ranunculus species
Rumex crispus, FAC+
Lemna minor, OBL
Juncus effusus, FACW
few *Dipsacus sylvestris*, FAC

Shrubs

Trees

Boundary Information: Vegetation changes to grazed grasses and an apple tree. Does not meet significance criteria because small size does not provide notable functions.

Wetland Functions: possible scientific/educational value, raised springs are unusual.

Features: Seep / spring in natural state with raised soils and high groundwater table; many in the area have been excavated to provide stock-watering ponds. Area to the northwest of the spring, adjacent to the re-routed channel of Taylor Creek, is highly suitable for wetland mitigation projects and/or enhancement of flood detention.

Jurisdictional: Yes (although very small)

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # T-2 & 3 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Gekeler + 18th County: Union State: OR Date: 10/27/15 Plot: T-2
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: Wetland spring near Taylor Ck floodway, S. of Gekeler Lane + W of 18th
Topographic Location: near power pole # 46 (south of); on-site w/ Tom Thompson
Do Normal Circumstances exist on the site? Y N Explain:
Are soils ___ vegetation ___ hydrology ___ significantly disturbed? N Explain:
↳ horses graze field

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:			**Shrub/Sapling** Stratum - % total cover:		
*(1) Typha latifolia		OBL	1.		
2. Aquatic Ranunculus sp.	prob.	OBL	2.		
3. Rumex crispus		FAC+	3.		
4. Lemna minor		OBL	4.		
5. Juncus effusus		FACW	5.		
6. few Dipsacus sylvestris		FAC	Tree Stratum - % total cover:		
7.			1.		
8.			2.		
9.			3.		

Remarks: broadleaf cattail, aquatic buttercup, curly dock, duckweed, soft rush, teasel
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO 100% EM

SOILS

Mapped unit name: Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-10		N 2/0	—	Clay
10-16		10YR 2/1	—	Silty Clay Loam

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X 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: Soils raised up ~ 1.5' in wetland area
Hydric Soil Criterion / Indicators Met? (YES) NO (30x20 = 600# = 0.014 acre.)

HYDROLOGY

Depth of inundation: 2-4" → in horse hooves Depth to saturation: Ø" Depth to free water:

1° Indicators	2° Indicators	2° Indicators
X 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: Water sinks in rather than running off	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Small; 30' wide x 20' N/S but very interesting; has not been excavated into stock-watering pond.
Determined by: CMW + DF

Wetland Assessment - City of La Grande, Oregon

Wetland T-2

Field Date 10/27/95

Tom Thompson
Spring W of 18th, S of Gekeler Lane

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			75% Ag/OS
Forest			
Developed		25% Res	
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space		20% Ag+OS	
Agriculture			
Forest			
Developed			80% or soon to be developed
Other			

17 What is the wetland acreage?

600ft² = 0.014ac

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
c			

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
b			

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%
Open Space			
Agriculture			
Forest			
Developed			100%
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				
Emergent				100%
Scrub-shrub				
Forested				

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 (EM)	c. open water (OW)
b			

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low
c			

25 Rural: 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 Urban: 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
b			

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre
d				

*bet. = between (bold questions = field)

Fisheries Habitat Wetland T-2

29 What fish species are present at some time during the year? Stream, lake or pond?

C	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland) NA

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

C	a. surface flow, including streams and ditches	b. precipitation	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

b	a. yes (describe)	b. no	c. unable to determine

Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

C	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?

na	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

na	a. no	b. yes

Public Access to Wetland Site

41 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

a	a. no	b. one or two safety hazards (describe)	c. more than two safety hazards (describe)

42 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent) ag land

a	a. yes	b. no

43 Is there existing physical public access to other habitats listed in question 42?

b	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 from the site	c. observation of other features can't be made from the site

Wetland 1-2

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility?

b	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed? no pavement

b	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes; trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

c	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

road only

Recreation

47 Is the wetland accessible by boat?

c	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

c	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that will 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?

b	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

b	a. yes (all or part of year)	b. no

thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

a	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

a-b	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?

b	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

a	a. yes	b. no

55 What odors are present at the primary viewing location(s)?

a	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)?

b	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

a	a. >50%	b. bet. 25% & 50%	c. <25%	(very small)

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

c	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland T-2 Spring W of 18th, S of Gekeler lane

Wildlife Habitat		
1	b	
2	b	
3	c	
4	c	
5	b	
6	b	
7	a	
8	b	but changing to c
9	a	
	DEGRADED	

Fish Habitat	NA	
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		

Water Quality (pollutant removal)		
1	c	
2	b	
3	a	
4	c	
5	b	
6	c	
	DEGRADED	

Hydrologic Control (flood control & water supply)		
1	a	
2	b	
3	c	
4	c	
5	b	
6	a	
7	a	
	DEGRADED	

Sensitivity to Impact		
1	a	
2	b	
3	c	
4	b	
5	a	
6	b	
	potentially sensitive	

Enhancement Potential		
1	a	
2	b	
3	a	
4	c	
5	c	
6	b	
	MODERATE (High if delete #5)	

Education		
1	b	
2	a	
3	b	
4	b	
5	b	
6	b	
	HAS	

Recreation		
1	c	
2	c	
3	c	
4	b	
5	b	
6	b	
	NOT Appropriate	

Aesthetic Quality		
1	c	
2	a	
3	a	
4	a	
5	a	
6	b	
	considered pleasing	

City of La Grande Wetland Assessment Summary Sheet

Wetland: T-2 Spring west of 18th, south of Gekeler Lane			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat*	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

Wetland function / value descriptor

*Fish Habitat is not applicable for this wetland.

WETLAND SUMMARY SHEET

WETLAND: T-3 **DRAINAGE:** Taylor Creek	**Field Date:** 10/27/95
Location: Excavated pond in Taylor Creek Floodway	**Observer:** CMW/DF
Tax Map: _ **Tax Lot:** 503	**Acres:** .02
T3S R38E Sect: 17AA	**On-site:** Yes

General Description: T-3 is a small (less than a 1000 square feet) isolated excavated pond in the floodway of Taylor Creek, south of Gekeler Lane and west of 18th. The pond has been enhanced with wetland and buffer plantings by La Grande High School students and is fed by springs that are piped into the pond (pipe is currently broken). The gravel bed of Taylor Creek is present beneath the pond. Springs are also present on the property to the north.

NWI Classification: 90% OW, 10% EM

Mapped Soils: (54C) Ramo Variant silt loam, 2-12% slopes

On-Site Soils: Not sampled; mostly open water and bare silt

Hydrologic Source/Comments: Spring that is piped in; winter flooding stays only a day or two.

Dominant Vegetation (*major dominant):

Herbs
Scirpus microcarpus, OBL

Shrubs

Trees

Boundary Information: Steep distinct topographic break and vegetation change. Does not meet significance criteria because small size does not provide notable functions.

Wetland Functions: Education, minor flood storage.

Features: Gravel bed of Taylor Creek.

Jurisdictional: yes, excavated in natural drainageway.

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # T-2 & 3 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for any of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), AND that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Carmichael's County: Union State: OR Date: 10/27/95 Plot: T-3

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Lorrie Carmichael W of 18th + S. of Gekeler

Topographic Location: excavated pond in Taylor Creek Floodway

Do Normal Circumstances exist on the site? 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:____			**Shrub/Sapling** Stratum - % total cover:____		
1. Scirpus microcarpus		OBL	1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum - % total cover:____		
7.			1.		
8.			2.		
9.			3.		

Remarks: Mostly Open water / bare silt

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):____ = ____

Hydrophytic Vegetation Criterion Met? (YES) NO Enhanced by La Grande H.S. Students

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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: Dug out pond; old gravel bed underneath (from Taylor Ck)

Hydric Soil Criterion / Indicators Met? YES NO

HYDROLOGY Eutrophic – crappy dred

Depth of inundation:____ Depth to saturation:____ Depth to free water:____

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: Springs - fed in by pipe	
___Sediment Deposits	Remarks: every winter still floods - water stays just a day or two,	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO ? (for 7-8 yrs atleast)	

DETERMINATION: Is this plot a Wetland? (YES) NO but not jurisdictional – excavated

Comments: Note: also springs on property between T-2 and T-3 (Hines), but tiny

Determined by: CMW + DF

Fishman Environmental Services

WETLAND SUMMARY SHEET

WETLAND: T-4 **DRAINAGE:** Taylor Creek	**Field Date:** 10/27/95
Location: Upper "Grandview Pond" south of Gekeler Lane & 18th	**Observer:** CMW/DF
Tax Map: _ **Tax Lot:** 2100	**Acres:** .20
T3S R38E Sect: 17 Quarter: NE	**On-site:** Yes

General Description: T-4 is a small approximately 0.2 acre stock-pond located upslope from the Taylor Creek floodway and east of the Grandview Cemetery. The pond is fed by springs, pumped out of a cistern. The pond was probably excavated in the 1930s. An overflow pond is located directly east; it did not display wetland vegetation. Vegetation of the stock-pond included softstem bulrush, teasel, Watson's willow-herb, sedge, cattail, American water plantain, sandbar willow, Pacific willow, and Himalayan blackberry.

NWI Classification: 80% OW / 10% EM / 10% SS

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: Not sampled.

Hydrologic Source/Comments: Spring / cistern.

Dominant Vegetation (*major dominant):

Herbs
Scirpus validus, OBL
Dipsacus sylvestris, FAC
Epilobium watsonii [*ciliatum*], FACW-
Carex species
Typha latifolia, OBL
Alisma plantago-aquatica, OBL

Shrubs
Salix exigua, OBL
Salix lasiandra, FACW+
Rubus discolor, FACU

Trees

Boundary Information: Very distinct topographic break and vegetation and hydrology break. Does not meet significance criteria because it's a stock pond excavated in uplands.

Wetland Functions: stock pond.

Features: None.

Jurisdictional: No. Excavated in upland.

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # T-4 & 5 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Grandview Pond County: Union State: OR Date: 10/27/95 Plot: T-4
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Grandview Farms (Goss - S. of Gekeler and 18th)
Topographic Location: Excavated stock pond behind house
o Normal Circumstances exist on the site? Y N Explain: ____
Are soils____ vegetation____ hydrology____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Scirpus validus		OBL
2. Dipsacus sylvestris		FAC
3. Epilobium watsonii		FACW-
4. Carex sp. (prob. FACW or OBL)?		
5. Typha latifolia		OBL
6. Alisma plantago-aquatica		OBL
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. Salix exigua (?)		OBL
2. Salix lasiandra (?)		FACW+
3. Rubus discolor		FACU
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		

& Sandbar willow, Pacific willow, Him. blackberry

Remarks: Small-fruited bulrush, teasel, Watson's willow-herb, sedge, cattail, water plantain,
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 7/9 or 8/9 = 77-89%
Hydrophytic Vegetation Criterion Met? (YES) NO
80% OW / 10% EM / 10% SS Wildlife Habitat

SOILS

Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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; Very distinct, topo break + veg break + hydrol. break.
Hydric Soil Criterion / Indicators Met? YES NO (steep) "1/2 0.2 acre"
Berm from the '30s

HYDROLOGY

Depth of inundation: 10-12 feet Depth to saturation: ____ Depth to free water: ____

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: (Springs)	
___Sediment Deposits	Remarks: inflow pumped out of cistern	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

DETERMINATION: Is this plot a Wetland? (YES) NO → BUT IT IS NOT JURISDICTIONAL - excavated
Comments: ~~10 feet wide~~ (square); overflow pond on east
Determined by: CMW + DF

Fishman Environmental Services

WETLAND SUMMARY SHEET

WETLAND: T-5 **DRAINAGE:** Taylor Creek	**Field Date:** 10/27/95
Location: Lower "Grandview Pond" south of Gekeler Lane & 18th	**Observer:** CMW/DF
Tax Map: _ **Tax Lot:** 2100	**Acres:** .067
T3S R38E Sect: 17 Quarter: NE	**On-site:** Yes

General Description: T-5 is a small stock-pond approximately one-third the size of T-4, located just downslope of T-4 on the same property. The pond is fed by springs, by a well, and by piped outflow from T-4. Vegetation of the stock-pond included cattail, duckweed, Oregon ash, black hawthorn, and Chinese elm.

NWI Classification: 20% OW / 80% EM / 10% SS

Mapped Soils: (51D) Ramo very stony silty clay loam, 2-20% slopes

On-Site Soils: Not sampled.

Hydrologic Source/Comments: Spring / well.

Dominant Vegetation (*major dominant):

Herbs
**Typha latifolia*, OBL
Lemna minor, OBL

Shrubs
Fraxinus latifolia, FACW
Crataegus douglasii, FAC

Trees
Ulmus parvifolia, NOL

Boundary Information: Very distinct topographic, vegetation and hydrologic break. . Does not meet significance criteria because it's a stock pond excavated in uplands.

Wetland Functions: stock pond

Features: None.

Jurisdictional: No. Excavated in upland

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # T-4 & 5 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: Grandview/Lower County: Union State: OR Date: 10/27/95 Plot: T-5

Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB

Plot Location: Lower pond below "Grandview Pond" w/ Mr & Mrs Goss

Topographic Location: ____

Do Normal Circumstances exist on the site? Y N Explain: ____

Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: ____		
1. Typha latifolia		OBL
2. Lemna minor		OBL
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1. Fraxinus latifolia		FACW
2. Crataegus douglasii		FAC
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1. Chinese elm - Ulmus parvifolia		NOL
2.		
3.		

Remarks: ____

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/5 = 80%

Hydrophytic Vegetation Criterion Met? (YES) NO 20%ow/80%EM/10%SS

SOILS

Mapped unit name: ____ Matches Profile? Y N

Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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; very distinct topo, veg, + hydrol. break

Hydric Soil Criterion / Indicators Met? YES NO

HYDROLOGY

Depth of inundation: circa 1'? Depth to saturation: ____ Depth to free water: ____

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: little spring SW of lower ponds	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO - Not jurisdictional, excavated

Comments: ____

Determined by: CMW & DF *Fishman Environmental Services*

WETLAND SUMMARY SHEET

WETLAND: UP-1 **DRAINAGE:** Isolated	**Field Date:** 7/22/95
Location: Union Pacific Railroad yard	**Observer:** RK
Tax Map: _ **Tax Lot:** None	**Acres:** .02
T3S R38E Sect: 5 Quarter: SW	**On-site:** No

General Description: UP-1 is a small pond which appears to function as a treatment pond. Approximate dimensions are 50 feet by 20 feet with an unknown depth. Edges of pond are mostly gravel with some weedy vegetation. A small shed is located at one end. A pipe appears to lead from the shed and feed the pond (although no flow was noted at the time of the survey). A float boom has been installed across the pond.

NWI Classification: 100% OW

Mapped Soils: (65) Urban land - Veazie Complex

On-Site Soils: No Access

Hydrologic Source/Comments: artificial source (possibly oil separation facility).

Dominant Vegetation (*major dominant):

Herbs

Bromus tectorum, NOL
Tragopogon dubius, NOL
Salsola kali, NOL
Kochia scoparia, FAC

Shrubs

Trees

Boundary Information: Steep gravel shore with weeds. . Does not meet significance criteria because it's a pond excavated in uplands.

Wetland Functions: Water quality treatment ?.

Features: None.

Jurisdictional: No

Locally Significant Wetland Criteria Checklist **per ORS 197.279 (3)(b)**

Evaluation of La Grande Wetland # UP-1 **Locally Significant: No**

A. "OUT" Test Wetlands that score "Yes" in this box are NOT significant:

Yes	No	
X		Wetlands ARTIFICIALLY CREATED ENTIRELY FROM UPLAND that are: (a) created for the purpose of controlling, storing, or maintaining stormwater; (b) active surface mining or active log ponds; (c) ditches without free & open connection to waters of the state AND w/o fish (d) < 1 acre and unintentionally created from irrigation leak or construction activity (e) created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard
		Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites")

B. "IN" Wetlands that meet ONE OR MORE of the following criteria are Significant.

Yes	No	
		Wetlands that score the highest rank (stated in italics below) for <u>any</u> of the four ecological functions addressed by OFWAM or equivalent methodology: ____ *diverse* wildlife habitat, ____ *intact* fish habitat, ____ *intact* water quality, or ____ *intact* hydrologic control.
		Wetlands that are rated in the second highest functional category for water quality (called *impacted or degraded* in OFWAM), <u>AND</u> that occur within 1/4 mile of a water quality-limited stream listed by DEQ.
		Contain one or more rare/uncommon wetland plant communities in Oregon. (Most concise list is found as Appendix G in OFWAM).
		Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation w/appropriate agency deems the site not important for the maintenance of the species).
		Wetland rates in the second highest functional category for fish habitat (called *impacted or degraded* in OFWAM), and has a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."
		Optional Criterion (local discretion): Wetland represents a *locally* unique plant community.
		Optional Criterion (local discretion): Wetland rates in highest category for education potential (it must be publicly owned to rank that in OFWAM) and there is documented use for educational purposes by a school or organization.

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site: UP-1 County: Union State: OR Date: 7/22/96 Plot: UP-1
Client: City of La Grande / DSL Sect. ____ Township ____ Range R38E City: La Grande or UGB
Plot Location: Union Pacific RR Yard
Topographic Location: ____
Do Normal Circumstances exist on the site? Y N Explain: ____
Are soils ____ vegetation ____ hydrology ____ significantly disturbed? N Explain: ____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 15		
1. Bromus tectorum	5	UPL
2. Tragopogon dubius	2	UPL
3. Salsola Kali	5	UPL
4. Kochia scoparia	3	FAC
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: ____		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: ____		
1.		
2.		
3.		

Remarks: Gravel coverage ~85%
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 25% = ____
Hydrophytic Vegetation Criterion Met? YES (NO)

SOILS No Access
Mapped unit name: ____ Matches Profile? Y N
Taxonomy: ____ Drainage Class: ____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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: Unknown Depth to saturation: ~ Depth to free water: ~

1° Indicators	2° Indicators	2° Indicators
X 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: Note: included this as WL, but NOT JURISDICTIONAL.
Determined by: Randy Krichbaum *Fishman Environmental Services*

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

old well plot

Project #: 95052 Site: N of Buchanan County: Union State: OR Date: 10/27/95 Plot:
Client: City of La Grande / DSL Sect. Township Range R38E City: La Grande or UGB
Plot Location: Dan Reynolds property E of Hwy 84 N of Buchanan Lane
Topographic Location: bottom of 20x40 rectangular well - 10' deep
Do Normal Circumstances exist on the site? Y (N) Explain: late fall
Are soils ___ vegetation ___ hydrology ___ significantly disturbed? (N) Explain: (N of MS-1+2)

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:		
1. Agropyron repens (?)		FAC-
2. Dactylis glomerata		FACU
3. Trifolium dubium		NOL
4. Bromus tectorum		NOL
5. Lactuca serriola (?)		FACU
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:		
1. Salix alba		FACW
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/6 = 17%
Hydrophytic Vegetation Criterion Met? YES (NO)

SOILS

Mapped unit name: Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

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

HYDROLOGY

(50 gal. drum)
In old barrel:
Depth of inundation: Depth to saturation: Depth to free water: 2.5'

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: has electric line, pump etc - its a well not a wetland
Determined by: CMW + DF

Fishman Environmental Services

APPENDIX B

OREGON METHOD

WETLAND SUMMARY SHEET

WETLAND:	**DRAINAGE:**	**Field Date:** _____
Location:		**Observer:** _____
Tax Map:	**Tax Lot:**	**Acres:** _____
T2S/T3S R38E Sect: _____	**Quarter:** _____	**On-site:** Yes No

General Description: (include watershed position, dominant plant community, wetland/upland mosaic description, purpose and source of artificially created wetland....)

NWI Classification: _____%OW _____%EM _____%SS _____%FO _____%R

Mapped Soils:

On-Site Soils:

Hydrologic Source/Comments: (stream channel width, depth, shape)

Dominant Vegetation (*major dominant):

Herbs

Shrubs

Trees

Boundary Information: (topographic break, vegetation change, buffer information)

Wetland Functions: (wildlife habitat, fish habitat, water quality, hydrologic control, sensitivity to impact, enhancement potential, education, recreation, aesthetics)

Features: (unique plant communities, noteworthy vegetation, park, public land, community interest, trails, etc....)

Jurisdictional: Yes No Undetermined

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 95052 Site:_____ County: Union State: OR Date:_____ Plot:_____
Client: City of La Grande / DSL Sect._____ Township_____ Range R38E City: La Grande or UGB
Plot Location:_____
Topographic Location:_____
Do Normal Circumstances exist on the site? 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:_____			**Shrub/Sapling** Stratum - % total cover:_____		
1._____			1._____		
2._____			2._____		
3._____			3._____		
4._____			4._____		
5._____			5._____		
6._____			**Tree** Stratum - % total cover:_____		
7._____			1._____		
8._____			2._____		
9._____			3._____		

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

SOILS

Mapped unit name:_____ Matches Profile? Y N
Taxonomy:_____ Drainage Class:_____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure

___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 saturation:_____ Depth to free water:_____

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:_____ *Fishman Environmental Services*

Wetland Assessment - City of La Grande, Oregon

Wetland_____

Field Date_____

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			
Other			

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	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%
Open Space			
Agriculture			
Forest			
Developed			
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				
Emergent				
Scrub-shrub				
Forested				

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 (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low

25 Rural: 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 Urban: 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

Estimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat Wetland_____

29 What fish species are present at some time during the year? Stream, lake or pond?

	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?
(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

	a. surface flow, including streams and ditches	b. precipitation	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. no	c. unable to determine

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. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

	a. no	b. yes

Public Access to Wetland Site

41 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 safety hazards (describe)	c. more than two safety hazards (describe)

42 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

43 Is there existing physical public access to other habitats listed in question 42?

	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 from the site	c. observation of other features can't be made from the site

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility? Wetland_____

	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed?

	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

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 will 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?

	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

	a. yes (all or part of year)	b. no

:thetics

Rural: what is the extent of visual contrast with the surrounding landscape?

	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

	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

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	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. more than two	b. two	c. one

City of La Grande Wetland Assessment Questions: Answer Sheet

Wetland_____

Wildlife Habitat		
1		
2		
3		
4		
5		
6		
7		
8		
9		

Fish Habitat		
Streams and Rivers		
1		
2		
3		
4		
5		
6		
Lakes and Ponds		
1		
2		
3		
4		
5		
6		

Water Quality (pollutant removal)		
1		
2		
3		
4		
5		
6		

Hydrologic Control (flood control & water supply)		
1		
2		
3		
4		
5		
6		
7		

Sensitivity to Impact		
1		
2		
3		
4		
5		
6		

Enhancement Potential		
1		
2		
3		
4		
5		
6		

Education		
1		
2		
3		
4		
5		
6		

Recreation		
1		
2		
3		
4		
5		
6		

Aesthetic Quality		
1		
2		
3		
4		
5		
6		

Fishman Environmental Services

City of La Grande Wetland Assessment Summary Sheet

Wetland:			
Function / Value	**Descriptor**		
Wildlife Habitat	Intact	Impacted or Degraded	Lost or Not Present
Fish Habitat	Intact	Impacted or Degraded	Lost or Not Present
Water Quality	Intact	Impacted or Degraded	Lost or Not Present
Hydrologic Control	Intact	Impacted or Degraded	Lost or Not Present
Sensitivity to Impact	Sensitive to Future Impacts	Potentially Sensitive to Future Impacts	Not Sensitive to Future Impacts
Enhancement Potential	Little	Moderate	High
Education	Has Educational Uses	Has Potential For Educational Use	Not Appropriate For Educational Use
Recreation	Provides Recreational Opportunities	Has the Potential to Provide Recreational Opportunities	Not Appropriate For or Does Not Provide Recreational Opportunities
Aesthetic Quality	Considered Pleasing	Considered to be Potentially Pleasing	Not Pleasing

■ Wetland function / value descriptor

City of La Grande Watershed Setting

Drainage Basin

1 What is the name of the drainage basin that contains your assessment area?

Physical Characteristics of the Watershed being Assessed (within the Drainage Basin)

Topography

2 What is the watershed's area in square miles? (The watershed area is often much smaller than the drainage basin.)

3 What is the nature of the main stem stream?

a. High gradient stream.	b. Moderate gradient stream.	c. Low gradient stream.	d. No stream present (no channelized flow).

Hydrologic Profile

4 Is the stream flow in the watershed modified by dams, channelization, or levees?

a. Tributary streams to the main stem stream are modified.	b. Main stem stream is modified.	c. Stream flow is not modified (free-flowing).

5 Is water being taken out of the stream(s) through active diking, drainage or irrigation distracts in the watershed upstream of the assessment area?

a. Yes.	b. No.

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, natural.

Water Quality

7 Consult the State of Oregon Department of Environmental Quality 305(b) Report to determine the point-source water quality of the water bodies in the watershed upstream of the assessment area. If the area is a headwater stream, try to find local information.

a. Upstream bodies of water are listed as water quality limited or as water bodies of concern with elevated levels of 307(a) pollutants.	b. No upstream bodies of water are listed as water quality limited or as water bodies of concern with elevated levels of 307(a) pollutants.

8 Consult the 1988 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 "a" and "b" apply, choose "a").

a. One or more upstream reaches are listed in severe water quality condition.	b. One or more upstream reaches are listed in moderate water quality condition.	c. All upstream reaches are listed as no problem (or not data available).

City of La Grande Watershed Setting, continued

Biological Characteristics 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.	e. Other (list).	

10 Are known sensitive, threatened or endangered fish species present in the watershed? If so, list which species.

a. Yes.	b. No.	c. Unknown.

11 Wildlife species: Select all that are appropriate and list species if known.

a. Migratory birds.	b. Big game.	c. Reptiles or amphibians.

12 Are known sensitive, threatened or endangered wildlife or plant species present in the watershed?

a. Yes.	b. No.	c. Unknown.

13 Does the watershed provide a natural corridor for fish or wildlife movement? List whether for fish, wildlife or both. Consider fences, dams and other barriers to travel. Aerial photographs of the watershed area are the best source of information. Fragmented systems have barriers to movement or a section where the natural area is broken by developed area. A corridor is a landscape feature that enables fish or wildlife species to travel between broad broad geographical areas (see Figure 1 in Oregon Method).

a. There are contiguous natural areas that allow species movement, and if barriers exist, they do not stop animal or fish movement.	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.

14 What are the landscape features at both ends of the movement corridor? From an aerial photo, observation or local knowledge, determine whether there are large natural areas at either end of the movement corridor. The natural area does not have to be a wetland.

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.

City of La Grande Wetland Assessment Summary Table - Oregon Method

Wetland	WH	FH	WQ	HC	SI	EP	Ed	Rec	Aesth
GLD-1	D	na	D	D	P	M	P	P	P
GS-1	D	na	I	D	P	M	P	P	P
GS-2	D	na	I	I	S	M	P	N	P
GST-2,-3	D	na	D	D	P	M	P	N	P
HP-1	D	D	D	I	P	H	HE	P	CP
IC-1*	D	D	I	I	S	M	HE	PR	CP
ICT-1	D	na	D	D	P	M	HE	P	CP
MC-3	D	na	I	D	P	M	HE	P	CP
MC-4,-5,-6,-7	D	na	I	I	P	H	HE	P	CP
MCT-1	I	I	I	I	P	na	HE	N	CP
MCT-2	D	D	D	D	P	M	HE	P	CP
MS-1,-2	D	na	I	D	P	H	P	N	P
RP-1*	D	D	D	D	S	M	HE	PR	CP
SR-1,-2,-3,-4,-5,-6	I	I	I	I	P	na	HE	PR	CP
BT-1,-2,LT-1	D	D	I	I	P	H	HE	P	P
T-1	D	na	D	I	P	M	N	P	P
-2	D	na	D	D	P	M	HE	N	CP

*IC-1 and RP-1 are probably not jurisdictional wetlands

WH	= Wildlife Habitat	(D=Degraded; I= Intact)
FH	= Fish Habitat	(D=Degraded; I= Intact; na=not applicable)
WQ	= Water Quality	(D=Degraded; I= Intact)
HC	= Hydrologic Control	(D=Degraded; I= Intact)
SI	= Sensitivity to Impact	(P=Potentially sensitive; S=Sensitive to future impacts)
EP	= Enhancement Potential	(M=Moderate; H=High; na=not applicable)
Ed	= Education	(P=Potential for educational use; HE= Has Educational use; N=Not appropriate for educational use)
Rec	= Recreation	(P= Potential to provide recreational opportunities; N= Not appropriate for recreation; PR=Provides Recreation)
Aesth	= Aesthetic Quality	(P=Potentially pleasing; CP=Considered Pleasing)

City of La Grande Watershed Setting

Drainage Basin

1 What is the name of the drainage basin that contains your assessment area?

GRANDE RONDE — GRR Basin is 5,265 square miles (DEQ, 1988).

Physical Characteristics of the Watershed being Assessed (within the Drainage Basin)

Topography

2 What is the watershed's area in square miles? (The watershed area is often much smaller than the drainage basin.)

19.7

3 What is the nature of the main stem stream?

a. High gradient stream.	b. Moderate gradient stream.	c. Low gradient stream.	d. No stream present (no channelized flow).

Hydrologic Profile

4 Is the stream flow in the watershed modified by dams, channelization, or levees?

a + b

a. Tributary streams to the main stem stream are modified.	b. Main stem stream is modified.	c. Stream flow is not modified (free-flowing).

* 5 Is water being taken out of the stream(s) through active diking, drainage or irrigation distracts in the watershed upstream of the assessment area? Note: Only applies to GRR - Areas in S + SE not so affected.

a

a. Yes.	b. No.

and Uses within the Watershed

6 What is the dominant land use in the watershed upstream from the assessment area?

b

a. Urban.	b. Urbanizing (mix of urban, agriculture and forest uses).	c. Agriculture (farming, ranching or grazing).	d. Forested, natural.

Water Quality

7 Consult the State of Oregon Department of Environmental Quality 305(b) Report to determine the point-source water quality of the water bodies in the watershed upstream of the assessment area. If the area is a headwater stream, try to find local information.

b

a. Upstream bodies of water are listed as water quality limited or as water bodies of concern with elevated levels of 307(a) pollutants.	b. No upstream bodies of water are listed as water quality limited or as water bodies of concern with elevated levels of 307(a) pollutants.

* 8 Consult the 1988 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 "a" and "b" apply, choose "a").

a

a. One or more upstream reaches are listed in severe water quality condition.	b. One or more upstream reaches are listed in moderate water quality condition.	c. All upstream reaches are listed as no problem (or not data available).

Grande Ronde River (not all wetlands affected)

City of La Grande Watershed Setting, continued

Biological Characteristics of the Watershed

9 Fisheries: Select all that are appropriate and list type if known. make list

a, c, d, e ~~f~~			
a. Cold water.	b. Warm water.	c. Anadromous.	d. Wild population.
(e) Introduced or hatchery populations.	f. None.	g Other (list).	

↳ coastal rainbow trout, gambusia

resident.

10 Are known sensitive, threatened or endangered fish species present in the watershed? If so, list which species.

a		
a. Yes.	b. No.	c. Unknown.

bull trout
Chinook Salmon

11 Wildlife species: Select all that are appropriate and list species if known.

a, b, c		
a. Migratory birds.	b. Big game.	c. Reptiles or amphibians.

12 Are known sensitive, threatened or endangered wildlife or plant species present in the watershed?

a		
a. Yes.	b. No.	c. Unknown.

13 Does the watershed provide a natural corridor for fish or wildlife movement? List whether for fish, wildlife or both. Consider fences, dams and other barriers to travel. Aerial photographs of the watershed area are the best source of information. Fragmented systems have barriers to movement or a section where the natural area is broken by developed area. A corridor is a landscape feature that enables fish or wildlife species to travel between ~~broad~~ broad geographical areas (see Figure 1 in Oregon Method).

b		
a. There are contiguous natural areas that allow species movement, and if barriers exist, they do not stop animal or fish movement.	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.

I-84 + I-30 are barriers
Irr. Dists. have fish barriers
Also long pipes (culverts) present
Deer can move @ South end, west end

14 What are the landscape features at both ends of the movement corridor? From an aerial photo, observation or local knowledge, determine whether there are large natural areas at either end of the movement corridor. The natural area does not have to be a wetland.

a or b		
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.

OS/Range land on W + S
FOR. land on S
Ag land on E
GRR @ N, cut off by I-84

Wetland Assessment - City of La Grande, Oregon

Wetland_____

Field Date_____

Wetland Structure and Landscape

15 What is existing percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet.* 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			
Other			

16 What is existing percentage of land use within 500 feet down-slope or down-stream of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			
Agriculture			
Forest			
Developed			
Other			

17 What is the wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to stream, lake, or pond?

	a. connected by surface water	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%
Open Space			
Agriculture			
Forest			
Developed			
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				
Emergent				
Scrub-shrub				
Forested				

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 (EM)	c. open water (OW)

24 How interspersed are the Cowardin classes (and uplands)?

	a. high	b. moderate	c. low

25 Rural: 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 Urban: 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

stimate area of unvegetated open water within the wetland.

	a. >3 acres	b. bet. 1 & 3 acres	c. bet. 0.5 acre & <1 acre	d. <0.5 acre

*bet. = between (bold questions = field)

Fisheries Habitat Wetland_____

29 What fish species are present at some time during the year? Stream, lake or pond?

	a. salmon, trout or sensitive species	b. other fish species	c. no species at any time during the year

Streams (associated with the wetland)

What is the physical character of the stream channel?

(return from modification means meandering, vegetation growth, rocks & snags present)

	a. natural channel, or modified but now natural	b.only portions of stream modified	c. recent extensive modifications, piped, or non-vegetated channel

31 What percentage of the stream is shaded?

	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 How does the water depth vary?

	a. more than two depths	b. mixture of two depths	c. uniform depth, or can't determine

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 submerged logs, floating 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?

	a. surface flow, including streams and ditches	b. precipitation	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. no	c. unable to determine

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. permanent blockage exists and alternative flow channels are not feasible

40 Has the stream flow or bank been modified by human activities (dams, levees, channelization) less than 1 mile above the wetland?

	a. no	b. yes

Public Access to Wetland Site

41 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 safety hazards (describe)	c. more than two safety hazards (describe)

42 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

43 Is there existing physical public access to other habitats listed in question 42?

	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 from the site	c. observation of other features can't be made from the site

44 Is access to a viewing spot or wetland edge difficult for individuals with limited mobility? Wetland_____

	a. no	b. yes	(list physical barriers)

45 Is public access to the wetland allowed?

	a. the wetland is open to the public	b. wetland access is allowed only by permission of landowner	c. no access is allowed

Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water course; maintained means designated car or transit area; unmaintained means road pull-off, etc.)

	a. yes, maintained access point exists (describe)	b. yes, unmaintained access point exists (describe)	c. no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas exist on site or within 1/2 mile on a connected lake, river or other body of water	b. potential to develop launching areas exists, or are present more than 1/2 mile but less than 1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas is limited.

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 will 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?

	a. yes (all or part of year)	b. no

50 Is hunting allowed at the wetland?

	a. yes (all or part of year)	b. no

Aesthetics

Rural: what is the extent of visual contrast with the surrounding landscape?

	a. significant contrast	b. limited contrast	c. little or no contrast

52 Urban: what is the visual character of the surrounding area?

	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

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	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, with no naturally occurring audible sounds

57 How much of the wetland is visible from the viewing area(s)? Describe.

	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. more than two	b. two	c. one

OREGON FRESHWATER WETLAND METHOD

ASSESSMENT QUESTIONS AND CRITERIA

WILDLIFE HABITAT: Assessment Criteria	
The wetland's wildlife habitat function is intact if:	At least four questions are answered "a," and no more than one is answered "c."
The wetlands's wildlife habitat function is lost or not present if:	All questions are answered "c."
The wetlands' wildlife habitat function is impacted or degraded if:	Answers do not satisfy the above-listed criteria.

WILDLIFE HABITAT

1) How many Cowardin wetland classes are present?

	Rural Areas:		Urban Areas:
a.	Three or four.	a.	Two or more.
b.	Two.	b.	One class with more than five plant species.
c.	One.	c.	One class with five or fewer plant species.

2) What is the dominant wetland vegetation or cover?

a. Woody vegetation
b. Emergent vegetation and ponding or just open water.
c. Emergent vegetation only.

3) What is the degree of Cowardin Class interspersion for the wetland being observed?

a. High.
b. Moderate.
c. Low.

4) If the wetland contains unvegetated open water, how many acres of unvegetated open water are present?

	Rural Areas:		Urban Areas:
a.	More than 3 acres.	a.	1 acre or more.
b.	Between .5 and 3 acres.	b.	.5 acres or more, but less than 1 acre.
c.	Less than .5 acres.	c.	Less than 0.5 acres.

5) How is the wetland connected to another body of water, such as a stream, lake or pond?

a. The wetland is connected by surface water to another body of water.
b. No surface water connection exists to another body of water, but other bodies of water lie within 1 mile of the wetland.
c. No surface-water connection exists to another body of water, and no other bodies of water lie within 1 mile of the wetland.

6) What is the proximity of the wetland to other wetlands?

a. Connected to other wetland within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, canal or lake.

b. Not connected by surface water, but other unconnected wetlands lie within a 3-mile radius.

c. Not connected to other wetlands by surface waters, and no other unconnected wetlands lie within a 3-mile radius.

7) What is the water quality condition of stream reaches in the watershed upstream from the assessment?

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.

8) What is the dominant existing land use with 500 feet of the wetland's edge?

Rural Areas:	Urban Areas:
a. Forested lands.	a. Open space.
b. Agriculture.	b. Agricultural.
c. Developed uses.	c. Developed uses.

9a) For rural areas: What percentage of the wetland's edge is bordered by upland wildlife habitat that is at least 150 feet wide?

a. More than 40%.

b. Between 10 and 40%.

c. Less than 10%.

9b) For urban areas: What percent of the wetland's edge is bordered by a vegetative buffer at last 25 feet wide?

a. More than 40%.

b. Between 10 and 40%.

c. Less than 10%.

FISH HABITAT: Assessment Criteria	
The wetland's fish habitat function is intact if:	At least three questions are answered "a," and no more than one is answered "c."
The wetlands's fish habitat function is lost or not present if:	All questions are answered "c."
The wetlands's fish habitat function is impacted or degraded if:	Answers do not satisfy the above-listed criteria.

FISH HABITAT

Part A: Streams

1) What percent of the stream associated with the wetland is shaded by stream-side (riparian) vegetation?

	Western Oregon:		Eastern Oregon:
a.	More than 75%.	a.	50% or more.
b.	Between 50% and 75%.	b.	25% or more, but less than 50%.
c.	Less than 50%.	c.	Less than 25%.

2) What is the physical character of the stream channel?

a. The stream is in a natural channel, or modified portions of the stream have returned to a natural channel.

b. Only portions of the stream channel have been modified, or if extensive modification has been done in the past, the stream has regained some natural channel features through the onset of meandering, the re-growth of the instream or bank vegetation or the addition of cover objects such as rocks or snags.

c. Extensive modifications have been made recently, or the stream is confined in a non-vegetated channel or pipe.

3) What percentage of the entire stream contains instream structures such as large, woody debris; floating submerged vegetation; large rocks; or boulders?

a. More than 25%.

b. Between 10% and 25%.

c. Less than 10%.

4) What is the water quality condition of stream reaches in the watershed upstream from the assessment area?

a. All upstream reaches are listed a *no problem* (or no data available).

b. One or more upstream reaches are listed in *moderate* water quality conditions.

c. One or more upstream reaches are listed in *severe* water quality conditions.

5) What is the dominant existing land use within 500 feet of the wetland's edge?

a. Forest lands or open space.

b. Agriculture.

c. Developed.

6) What fish species are present?

a. Salmon, trout or sensitive species are present at some time during the year.
b. Species not covered in "a" are present at some time during the year.
c. No species are present at any time during the year.

Part B: Lakes and Ponds

1) How does the water depth vary?

a. The water has more than two depths.
b. There is a mixture of two depths.
c. All water is roughly of uniform depth, or depth can't be determined.

2) What percentage of the wetland contains cover objects such as submerged logs, floating submerged vegetation, large rocks or boulders?

a. More than 25%.
b. Between 10% and 25%.
c. Less than 10%.

3) What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation.

a. 60% or more.
b. 20% or more, but less than 60%.
c. Less than 20%.

4) What is the water quality condition of stream reaches in the watershed upstream from the assessment area?

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.

5) What is the dominant existing land use within 500 feet of the wetland's edge?

a. Forested lands or open space.
b. Agriculture.
c. Developed.

6) What fish species are present?

a. Salmon, trout or sensitive species are present at some time during the year.
b. Species not cover in "a" are present at some time during the year.
c. No species are present at any time during the year.

WATER QUALITY: Assessment Criteria	
A wetland's water-quality function is intact if:	Question 1 is answered "a," or "b," questions 2 and 3 are answered "a," and any other question is answered "a" or "b."
The wetlands's water-quality function is impacted or degraded if:	Answers do not satisfy the above- or below-listed criteria.
The wetlands's water-quality function is impacted or degraded if:	Five out of six questions are answered "c."

WATER QUALITY (POLLUTANT REMOVAL)

1) What is the wetland's primary source of water?

a. Surface flow, including streams and ditches.
b. Precipitation.
c. Groundwater, including seeps and springs.

2) Is there evidence of flooding or ponding during a portion of the growing season?

a. Yes.
b. No.
c. Unable to determine.

3) What is the degree of wetland vegetation cover?

a. High. (>60%)
b. Medium. (=60%)
c. Low. (<60%)

4) What is the wetland's area in acres?

a. More than 5 acres.
b. Between .5 acres and 5 acres; or wetland area is less than 5 acres, and the wetland is connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, canal or lake.
c. Less than .5 acres, and the wetland is not connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, canal or lake.

5) What is the dominant, existing land use within 500 feet of the wetland's edge?

a. Developed.
b. Agriculture.
c. Forested lands or open space.

6) What is the water quality condition of stream reaches in the watershed upstream from the assessment area?

a. One or more upstream reaches are listed in *severe* water quality condition.
b. One or more upstream reaches are listed in *moderate* water quality conditions.
c. All upstream reaches are listed as *no problem* (or no data available).

HYDROLOGIC CONTROL: Assessment Criteria	
The wetland's hydrologic control function is intact if:	Four or more questions are answered "a."
The wetlands's hydrologic control function is impacted of degraded if:	Answers do not satisfy the above- or below-listed criteria.
The wetlands' hydrologic control function is lost or not present if:	Four or more questions are answered "c."

HYDROLOGIC CONTROL (FLOOD CONTROL & WATER SUPPLY)

1) Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

a. Yes.
b. No.

2) Is there evidence of flooding or ponding during a portion of the growing season?

a. Yes.
b. No.
c. Unable to determine.

3) What is the wetland's area in acres?

a. More than 5 acres.
b. Between .5 acres and 5 acres.
c. Less than .5 acres.

4) Is waterflow out of the wetland restricted (e.g. beaver dam, concrete structure, undersized culvert)?

a. Yes, the outlet is restricted or the wetland has no outlet.
b. Minor restrictions slow down the water (i.e., undersized culvert.)
c. No, the outlet has unrestricted flow.

5) What is the dominant wetland vegetation or cover?

a. Woody vegetation (forested and scrub-shrub).
b. Emergent vegetation.
c. Open water.

6) What is the dominant existing land use, within 500 feet of the wetland on the down-stream or down-slope edge of the wetland?

a. Developed uses.
b. Agriculture.
c. Forested land and open space.

7) What is the dominant land use in the watershed upstream from the assessment area?

a. Urban or urbanizing.
b. Agriculture.
c. Forested, natural.

SENSITIVITY TO IMPACT: Assessment Criteria	
The wetland is sensitive to future impacts if:	Questions 1, 2, and 3 are answered "a," and one other question is answered "a."
The wetlands is not sensitive to future impacts if:	Questions 1 and 2 are answered "b," and no other questions are answered "a."
The wetlands is potentially sensitive to future impacts if:	Answers do not satisfy the above-listed criteria.

SENSITIVITY TO IMPACT

1) Has the stream flow or bank been modified by human activities less than 1 mile above the wetland? Modifications include dams, channelizations and levees.

a. Yes.
b. No.

2) Is water being taken out of the stream(s) through active diking, drainage or irrigation districts upstream of the assessment area?

a. Yes.
b. No.

3) What is the water quality condition of water bodies in the watershed upstream from the assessment area?

a. One or more upstream reaches are listed in *severe* water quality condition.
b. One or more upstream reaches are listed in *moderate* water quality conditions.
c. All upstream reaches are listed as *no problem* (or no data available).

4) What is the dominant, existing land use within 500 feet of the wetlands's edge?

a. Developed.
b. Agriculture.
c. Forested land or open space.

5) What is the dominant zoned land use within 500 feet of the wetland's edge?

a. Developed.
b. Agriculture.
c. Forested land or open space.

6) What is the dominant Cowardin wetland class?

a. Forested or scrub-shrub.
b. Emergent.
c. Open water.

ENHANCEMENT POTENTIAL: Assessment Criteria	
A wetland has high enhancement potential if:	Question 1 is answered "a," and only one other question is answered "c."
A wetlands has little enhancement potential if:	Question 1 is answered "b," and two or more other questions are answered "c."
A wetland has moderate potential for enhancement if:	Answers do not satisfy the above-listed criteria.

ENHANCEMENT POTENTIAL

1) What are the assessment results for wildlife habitat, fish habitat, water quality and hydrologic control?

a. One or more of the functions is degraded or impacted.
b. The wetland has lost one or more of the functions listed or one or more of the functions is not present.

2) What is the wetland's primary source of water?

a. Surface flow, including streams and ditches.
b. Groundwater, including springs and seeps.
c. Precipitation.

3) If the primary source of water is surface flow, is the water flow into the wetland restricted?

a. Not restricted or if blocked, can be removed or is limited and does not impede flow.
b. Permanent blockage exists, but may be readily breached or a new flow channel created.
c. Permanent blockage exists and alternative flow channels do not appear feasible.

4) What is the wetland's area in acres?

a. More than 5 acres.
b. Between .5 acres and 5 acres.
c. Less than .5 acres.

5) What is the dominant zoned land use within 500 feet of the wetland's edge?

a. Forest land or open space.
b. Agriculture.
c. Developed.

6) What is the result of the sensitivity to impact index?

a. The wetland is not sensitive to future impacts.
b. The wetland is potentially sensitive to future impacts.
c. The wetland is sensitive to future impacts.

EDUCATION: Assessment Criteria	
A wetland has educational uses if:	Question 1 is answered "a" or "b;" question 2 is answered "a;" and at least one of questions 3, 4, and 5 is answered "a" or "b."
A wetland has potential for educational use if:	Answers do not satisfy the above- or below-listed criteria.
A wetland site is not appropriate for educational use if:	The answer to 1 or 2 is "c."

EDUCATION

1) What is the degree of public access to the wetland site?

a. The wetland is open to the public.
b. Wetland access is allowed only by permission of the landowner or managing entity.
c. No access is allowed.

2) Are there visible hazards to the public at the wetland site?

a. No.
b. One or two visible safety hazards exist.
c. More than two visible safety hazards exist.

3) What are the results for the wildlife habitat and fish habitat indexes?

a. Either the wildlife habitat function or fish habitat function is intact.
b. Neither the wildlife habitat function nor fish habitat function is intact, but one or both is present, but degraded or impacted.
c. Both wildlife habitat function and fish habitat function are lost or not present.

4) Is there existing physical public access to other habitats, such as a stream, lake, pond, forest, or agricultural land? If not, can such access be created easily, or can other habitats be observed from the site?

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 from the site.
c. Public access doesn't exist and can't be created easily. In addition, observation of other features can't be made from the site.

5) Is there a public access point within 250 feet of the wetland's edge?

a. Yes, a maintained access point exists.
b. Yes, an unmaintained access point exists.
c. No access point exists, or the access point is hazardous.

6) Does it appear that access to a viewing spot or wetland edge is difficult for individuals with limited mobility?

a. No.
b. Yes.

RECREATION: Assessment Criteria	
The wetland provides recreational opportunities if:	Questions 1 or 2 is answered "a," and the answer to 3, 4, 5, or 6 is "a."
The wetlands has potential to provide recreational opportunities if:	Answers do not satisfy the above- or below-listed criteria.
The wetlands is not appropriate for or does not provide recreational opportunities if:	Questions 1 and 2 are answered "c;" or questions 3 and 4 are answered "c," and 5 and 6 are answered "b."

RECREATION

1) Is there a public access point within 250 feet of the wetland's edge?

a. Yes, a maintained access point exists.
b. Yes, an unmaintained access point exists.
c. No access point exists, or the access point is hazardous.

2) 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 water.
b. Potential to develop boat launching areas or access points exists, or such features are more than 1/2 mile but less than 1 mile from the wetland.
c. No boat launching areas or access points exist within 1 mile of the wetland, and potential to develop launching areas or access points is limited.

3) Are there trails, viewing areas or other structures that guide user movement to a particular area or areas in or around the wetland?

a. Yes, developed or maintained trails or viewing area exist.
b. Yes, undeveloped trails or viewing areas exist that will not disrupt wildlife or plant habitat.
c. No trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

4) What is the result of the wildlife habitat index?

a. The wetland's wildlife habitat function is intact.
b. The wetland's wildlife habitat function is impacted or degraded.
c. The wetland's wildlife habitat function is lost or not present.

5) Is fishing allowed at the wetland or adjacent water body?

a. Yes.
b. No.

6) Is hunting allowed at the wetland?

a. Yes.
b. No.

AESTHETICS: Assessment Criteria	
A wetland is considered to be pleasing if:	Question 1 or 2 is answered "a," and all other questions are answered "a" or "b."
A wetland is considered to be potentially pleasing if:	Answers do not satisfy the above- or below-listed criteria.
A wetland is not considered pleasing if:	Two or more questions are answered "c."

AESTHETIC QUALITY

1) How many Cowardin classes are visible from the primary viewing area(s)?

a. More than two.
b. Two.
c. One.

2) From the viewing area(s), how much of the wetland is visible?

a. More than 50%.
b. Between 25% and 50%.
c. Less than 25%.

3) What is the general appearance of the wetland as visible from primary viewing location?

a. No visual detractors.
b. Visual detractors exist but can be removed easily.
c. Visual detractors exist and cannot be removed easily.

4) What is the extent of visual contrast with the surrounding landscape (rural) or visual character of the surrounding area (urban)?

Rural	Urban
a. Significant contrast with surrounding landscape.	a. Open space or naturally landscaped areas.
b. Limited contrast with surrounding landscape.	b. Areas landscaped or manipulated by people.
c. Little or no contrast with surrounding landscape.	c. Developed with no landscaping.

5) What odors are present at the primary viewing location(s)?

a. Natural pleasant odors only.
b. Unpleasant odors such as automobile exhaust or stench from a sewage treatment plant are present at certain times.
c. Unpleasant odors are distinct and continuously present.

6) What noises are audible at the primary viewing location?

Rural	Urban
a. Bird and wildlife noises and other naturally occurring sounds.	a. Some traffic and other similar background sounds are audible in addition to naturally occurring sounds.
b. Some traffic and other similar background sounds are audible in addition to naturally occurring sounds.	b. Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds.
c. Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds.	c. Continuous traffic or other intrusive noise is audible, but no naturally occurring sounds are.

APPENDIX C

2002
DIVISION OF STATE LANDS
COMMENTS

Oregon
John A. Kitzhaber, M.D., Governor

Division of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 378-3805
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http://statelands.dsl.state.or.us

August 16, 2002

State Land Board

John A. Kitzhaber
Governor

Bill Bradbury
Secretary of State

Randall Edwards
State Treasurer

Mike Hyde
Planning Department, City of La Grande
PO Box 670
La Grande, OR 97850

RE: Review of La Grande Local Wetland Inventory

I have finally reviewed the draft map and documents for the La Grande Local Wetland Inventory (LWI). I have reviewed all the wetland determinations, delineations, and permit records for the La Grande area in our database since 1995. I have also reviewed your proposed ordinance language and will send comments on that under separate cover. I have made jurisdictional determinations and significance determinations for all inventoried wetlands according to our administrative rules. As always, if a landowner has a question about whether a specific site is subject to state permit requirements, it is best to inquire directly of the agency rather than relying on the map. The map disclaimer states this also: "There may be unmapped wetlands subject to regulation."

Overall, there are only a few necessary map changes, and based on your revised map, a few places where numbers will need to be changed in the text. The tasks that are left for the city to complete are listed below.

Map Changes

I have just reviewed the map sent to DSL on March 10 of 1998. This package consisted of two 1 inch : 500 feet scale map sheets, the south half dated 7/5/96 and the north half dated 8/23/96. I compared this edition of the map to my review letter dated April 30, 1996 (copy enclosed) which was based on a map dated 12/08/95. The majority of necessary revisions were completed for this second draft, but there are a few remaining corrections or updates to be made. Below are the remaining tasks needed to finalize the map.

1. The final map should be prepared using line types and shading that are clearly distinguishable in black & white photocopies. Current use of color - such as the blue versus green lines - will make some features indistinguishable.

2. There are registration problems between the plat layer and the wetlands layer below Spence reservoir for wetlands SR3 and SR6, and possibly others in this area. (See enclosed correspondence) I think there are 2 potential solutions here:
A. If you have a good air photo - or even better, the consultant's photo overlay with wetlands drawn in - you could slide the wetland layer over to better fit the lots lines, based on landmarks visible in the photo.
B. If this is really not at all possible, then we should assume that the true wetland location in this area is very approximate, and notify adjacent lot owners as well as those lot owners who actually have mapped wetlands, so that they all have adequate opportunity for participation in the community planning decisions. The LWI rules require

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LA GRANDE, OR 9735

all affected property owners be notified within 120 days of the final DSL approval of the LWI.

3. IC-3 and GST-1 need polygon labels. Currently, only the sample points are labeled.

4. Wetlands T2 and T3 are smaller than the required minimum size for mapping; however, the draft summary sheet states that a school group has been involved in restoration of site T3, and it is jurisdictional because it was excavated in a natural drainageway. It is optional, but would be useful to restore these 2 data points, as they were on the earlier map. I have enclosed an excerpt from the 12/95 map showing these locations.

5. Wetlands MC 4, 5, and 6 have been altered, or at least were proposed to be altered according to our records. There have been some conflicting determinations of jurisdiction on this system, based on perceptions of whether the water source was artificial (a culverted ditch) or a natural stream that had been partially piped. Please field-verify what remains of this system as best you can and revise the map accordingly. I have evaluated significance based on the assumption that the armory has filled some of MC5 and MC6, and some of MC4 has been reduced to a ditch or pipe. If this is incorrect, please advise me.

6. We have received correspondence over the last few years that the Irrigation Canal Company ditch through Pioneer Park, labeled IC1 on the map, was to be filled. Also, the pond and portions of Nesley ditch within Riverside Park, labeled RP1 and RP2, were also proposed to be filled. Please field-verify whether these features are indeed gone. If so, they should be taken off the map, deleted from various tables, and the other documentation pages pulled. An errata sheet could also be used to clarify such changes.

7. In a letter dated 8/30/96 Amy Drought inquired how streams and wetlands ought to be distinguished on the map. Jurisdictional wetlands are defined as areas that meet certain criteria in their soil, vegetation, and duration of saturation in the growing season. Streams we define as jurisdictional to the top of bank, or the typical 2-year high flow elevation. In reality, there are often narrow wetland zones alongside streams, so there is little reason to map them separately. The upper reaches of Mill creek probably have very little wetland associated, but most parts of Gekeler slough are likely to meet the wetland criteria. I think the most useful approach to mapping would be to distinguish non-jurisdictional ditches with one line type, and jurisdictional streams and wetlands with another. Refer to the table of jurisdictional sites provided.

8. The text distinguishes the Grande Ronde River and Mill Creek reaches 1 and 2 as waters of the state rather than wetlands. You may choose to represent these with a distinctive line type on the map. The map needs additional labels to identify MC-2 as the reach that runs from Avenue A to the college.

9. Once the map is finalized, you'll need to generate a revised table showing the wetland polygon acreages. These numbers will need to be plugged in to each summary sheet. Alternatively, it is acceptable to me to prepare a table to be appendixed in the

report that lists the tax lots affected by each wetland. Depending on the map accuracy you think you've achieved, it may be desirable to map a buffer of say, 25 feet around these lines and polygons, and notify these additional landowners that a wetland or stream has been mapped on or near their property.

Locally Significant Wetland Findings
I prepared a summary table that shows which wetlands meet the significance criteria. It could be used in place of page 12 of the narrative text. I also prepared a checklist for each wetland or group of wetlands that shows how significance was determined, and inserted the same information in the narrative at the bottom of each wetland summary sheet. I have emailed both of these files to you.

I have enclosed a copy of the administrative rules that contain the criteria for making these determinations. If you feel a narrative description of the significance analysis is necessary, I could write something up quickly, let me know.

Another caution: some cities have thought it expedient to map only their significant wetlands. However, this leads to lots of confusion and potentially could contribute to wetland fill violations. Please retain both significant and non-significant wetlands on the inventory map, as all are still regulated by the state and federal agencies, regardless of the status of city ordinances. Also, the wetland - land-use notification requirement applies to all wetlands, regardless of the significance determination.

Text Changes - Narrative
You may choose to handle this list with an errata sheet or by getting the electronic file from the consultant and making the revisions in-house.

10. Pages 12 and 13 of the text need to be revised consistent with the table I prepared showing which wetlands are significant.

11. Page 14 Table needs to have acreages verified after the map has been updated per comments above, and the 2 wetlands that I determined ARE jurisdictional should be added to this table. Also, units RP-1 and IC-1 should be dropped from the table, as long as it is labeled "Jurisdictional wetlands".

12. As I evaluated each site against the significance criteria, I made a few corrections to the function assessment appendix. The table on page 31 of the narrative needs to be revised to reflect these corrections:
A. GS-1 and GS-2 were noted by ODFW to contain a fishery, which score moderate according to OFWAM. Please revise the fish habitat column on this table to read D for "degraded" for these 2 sites.
B. MS-1 and MS-2 are primarily spring-fed, as far as I can tell, so their opportunity to improve water quality is limited. Therefore the water quality rating needs to be changed from I for intact to D degraded.
C. T-1 has intact water quality improvement function. It looks to me like the component OFWAM scores for this sites were tallied incorrectly.
D. Add T3 to the row with T2, as they are similar.

13. Conclusions on page 33 should be revised to incorporate all revised acreages and jurisdictional determinations.

Summary Sheets:
Given that your consultant finished their obligations to this project without responding to my earlier correspondence (4/30/96), I figured it would be more efficient for me to make those and other necessary revisions rather than to explain precisely how someone else should make them. I requested an electronic copy from the consultant and have inserted the corrections where needed. I carefully checked the function assessment appendix against each summary page and revised the summary page to be consistent., then I added a one-sentence summary of the Locally Significant Wetland determination to each summary sheet. Please review these, especially for those wetlands that may have changed on the ground in the last few years, and let me know if they are OK.

Other items
14. Once the map is updated, the list of tax lots prepared April 10, 1997, will need to be updated to reflect any changes in ownership since that time. This list will be your mailing list for the required notification to affected property owners that must be done within 120 days of DSL's final approval of the inventory.

I took the liberty of re-organizing my copy so that all the summary sheets were in alphabetical order, including jurisdictional and non-jurisdictional sites and streams, and shifted all the assessment information and data sheets to an appendix. If you choose to do the same, the table of contents should be revised to reflect this.

Final Steps
You may find other items that have changed that I was not aware of; please call those items to my attention and I will tweak the summary sheets or significance evaluations as warranted.

15. Please send DSL the final map, errata sheets or revised narrative text, any revised summary sheets, and the final list of affected tax lots, so that the agency has a complete and correct final set of documents. I will review these documents against this letter and the LWI rule requirements and expedite the final agency approval.

Thank you for your patience.

Sincerely,

Dana Field

Dana Field
Wetlands Planner

cc: Laren Woolley, DLCD

enclosures

La Grande LWI

see page 12 for acreage

Wetland Code	Location	Acreage	State Jurisdiction	Locally Significant Wetland
BC- 1, 2, 3, 4	Boise Cascade Yard		No	No
BT-1	South of Hghland Drive		Yes	Yes
BT-2	North of Highland Drive		Yes	Yes
DC-1	Deal Canyon		No	Stream, NA
GLD-1	Gekeler Lane Ditch		Yes	Yes
GRD-1	Grande Ronde Ditch		No	No
GRD-2	Grande Ronde Ditch		No	No
GRR-1	Grande Ronde River		Yes	River, NA
GS-1	Gekeler Slough		Yes	Yes
GS-2	Gekeler Slough		Yes	Yes
GST-1	Gekeler Slough Tributary		Yes	No
GST-2 & 3	Gekeler Slough Tributary		Yes	No
HP-1	Hoffman Park Pond		Yes	Yes
IC-1	Irrigation canal in Pioneer Park		No	No
IC-2	Irrigation canal, downtown section		No	No
IC-3	Irrigation canal, north of RR tracks		No	No
ICT-1	Hillside seep below Gangloff Park		Yes	No
LT-1	Little Taylor creek, west of Hillcrest		Yes	Yes
MC-1	Mill Creek, upper reach		Yes	Stream, NA
MC-2	Mill Creek, Avenue A to College		Yes	Stream, NA
MC-3	Birnie Park		Yes	Yes
MC-4	North of Gekeler at Matoon		Yes	Yes
MC-5	North of Gekeler, west of 12th		Yes	Yes
MC-6	North of Gekeler, west of 12th		Yes	Yes
MC-7	North of Gekeler, 12th to 20th		Yes	Yes
MCT-1	Pond in southwest corner of city		Yes	Yes
MCT-2	Southeast of Oak street		Yes	Yes
MS-1 & 2	McAllister Slough headwaters, west of I-84		Yes	No
RP-1	Pond in Riverside Park		No	No
RP-2	Nesley Ditch in Riverside Park		No	No
SR-1	Spence Reservoir, end of Gilcrest Drive		Yes	Yes
SR-2	Above Spence reservoir		Yes	Yes
SR-3	Below and northeast of Spence reservoir		Yes	Yes
SR-4	South of Gekeler near MC-4		Yes	Yes
SR-5	"Goss Pond" north of Spence reservoir		Yes	Yes
SR-6	West of 12th street, contiguous with SR-3		Yes	Yes
T-1	Taylor creek, Sunnyhills Park		Yes	Yes
T-2	Spring south of Gekeler and west of 18th		Yes	No
T-3	Spring south of Gekeler and west of 18th		Yes	No
T-4	Upper "Grandview Pond"		No	No
T-5	Lower "Grandview Pond"		No	No
UP-1	Union Pacific RR Yard		No	No

prepared by
Dana Field
8.16.02