



CITY OF JUNCTION CITY
680 Greenwood
P.O. Box 250
Junction City, OR 97448
Phone: 541-998-2153
Fax: 541-998-3140

<http://www.junctioncityoregon.gov/>

January 17, 2012

Re: Taxlot _____

Dear Junction City Property Owner:

Why are we contacting you? The city recently completed the Junction City Local Wetland Inventory. Property that you own at Taxlot _____ was included on this inventory and found to contain a wetland, possible wetland, or waterway. State regulations at OAR 141-86-0240 require us to notify you of this determination.

Purpose of the inventory: The inventory was done primarily for the city's comprehensive plan update, as required by OAR 660-23-0100, and to achieve better coordination between land use planning and wetland regulations. The inventory identified, described, and mapped the approximate boundaries of wetlands within the city and the urban growth boundary. Where access permission was granted, the wetland inventory map should be more accurate. Prior to proposed development, field verification may be necessary to determine precise boundaries and where various regulations may apply. There may be unmapped wetlands that are also subject to state and federal regulation.

The inventory has been approved by the Department of State Lands (DSL) and will be included in the Statewide Wetland Inventory and will be used by the city to notify DSL if site development is proposed on affected parcels. The inventory will help both the community and individual landowners by providing advance notice about wetland regulations so that we can plan ahead for necessary permits and avoid potential fill violation liability.

Does the inventory create new regulations? Based on the recently completed inventory and evaluation of wetlands, the city may choose to adopt new ordinances to protect the functions and values of certain wetlands that are important to the community. Junction City is currently reviewing what protection standards to use for the wetlands identified through this inventory process.

Compliance with state and federal wetland regulations is the responsibility of every landowner, regardless of whether the wetlands have yet been identified on any map. For further information on wetland regulations, contact DSL at 503-986-5200 or via their web page at <http://statelands.dsl.state.or.us>; or contact the Army Corps of Engineers at 503-808-4373.

For more information about the inventory: You may view the Inventory map and documentation at City Hall (680 Greenwood Ave, Junction City) or online at

www.oregonstatelands.us/DSL/WETLAND/lwi_disclaimer_agreed.shtml . Public information meetings addressing the Inventory project were held on October 29, 2008, March 25, 2009, October 14, 2010 and more recently on March 16, 2011, November 18, 2011, and December 20, 2011.

For more information about new regulations: Additional information meetings are anticipated during January and February, 2012 to encourage citizen participation in future wetland planning steps. Please look at the Planning Commission and City Council agendas which are available at <http://www.junctioncityoregon.gov/> for more information on future meeting dates.

If you have questions or concerns about the project, please contact Stacy Clauson at (541) 998-2153 or send an email to jcplanning@ci.junction-city.or.us.

Sincerely,

Stacy Clauson

Stacy Clauson
Junction City Planning



Oregon

John A. Kitzhaber, MD, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregonstatelands.us

December 16, 2011

State Land Board

The Honorable David Brunscheon
680 Greenwood/PO Box 250
Junction City, OR 97448

John A. Kitzhaber, MD
Governor

Kate Brown
Secretary of State

Re: Approval of Junction City Local Wetlands Inventory and Assessment

Ted Wheeler
State Treasurer

Dear Mayor Brunscheon:

I am pleased to notify you that the Department of State Lands (DSL) has approved your Local Wetlands Inventory (LWI) and assessment. We appreciate your planning staff and the wetland consultant working with our staff to ensure that the inventory meets state LWI requirements (OAR 141-86-0180 through -0240) and the city's needs. The DSL-approved report and maps can be viewed and downloaded from our website at http://www.oregonstatelands.us/DSL/WETLAND/lwi_disclaimer_agreed.shtml?. The DSL-approved GIS datasets are available for download from the Department's ftp site at <ftp://rogue.dsl.state.or.us/>. Please contact DSL if you would like a paper copy of the approved-LWI. 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.

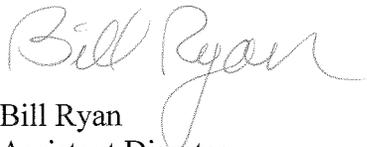
Approval by DSL means that the LWI becomes part of the Statewide Wetlands Inventory. The LWI must now be used by the city instead of the National Wetlands Inventory for the Wetland Land Use Notification Process (ORS 227.350). The LWI and functional assessment also form the foundation for your wetland planning under Statewide Planning Goal 5, and the LWI must be adopted by the city per the Goal 5 requirements. Please note 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 identify accurately most wetlands within the study area, DSL's approval does not guarantee that all regulated wetlands have been mapped. The mapped wetland boundaries are estimated boundaries, they have not been surveyed, and there are inherent limitations in mapping accuracy. DSL advises persons proposing land alteration on parcels containing mapped wetlands first to contact DSL or to obtain a wetland boundary delineation by a qualified consultant and submit it to DSL for approval prior to the land alteration.

It will be important to annotate your map (and associated database, if any) as new wetland delineations are completed and approved by DSL in order to keep your LWI updated. A few approved delineations have been completed since the LWI review draft(s). We will forward copies of the delineations to the city planning department and recommend the DSL file number be noted on the affected tax lots. Future wetland delineation approvals will be provided to the planning department.

We are pleased that the Junction City 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 Anna Buckley at 503-986-5321 with any questions you may have about the LWI or its use.

Sincerely,



Bill Ryan
Assistant Director
Wetlands and Waterways Conservation Division

ec: Kay Bork, Junction City Planning Department
Ed Moore, DLCD
Amanda Punton, DLCD
Tim Brooks, Winterbrook Planning
Yvonne Vallette, EPA
Tina Teed & Brian Wilson, Corps of Engineers
Shauna Ginger, FWS
Bill Kirchner, FWS
Jon Germond, ODFW
Pete Anderson, DEQ
John Bauer, Oregon Biodiversity Information Center
Gloria Kiryuta, DSL



LOCAL WETLAND INVENTORY REPORT FOR JUNCTION CITY, OREGON

Prepared for:

CITY OF JUNCTION CITY
680 Greenwood Street
Junction City, Oregon 97448

Prepared by:

WINTERBROOK PLANNING
310 SW Fourth Ave., Suite 1100
Portland, Oregon 97204



August 2011

Local Wetland Inventory Report Junction City, Oregon

Table of Contents

Introduction.....	1
Summary of Findings	1
Study Area Overview.....	2
Landscape Setting	2
Climate	2
Topography	4
Hydrology	4
Geology	4
Soils.....	5
Vegetation.....	5
Inventory Methods.....	8
Review of Existing Information.....	8
Field Inventory	9
<i>Wetland Function and Condition Assessment</i>	10
<i>Wetlands of Special Interest for Protection</i>	11
<i>Locally Significant Wetland Criteria</i>	11
<i>Mapping Procedures</i>	12
Public Involvement Process	12
Public Outreach.....	12
Agency Coordination	13
Inventory Results	13
Overview	13
Wetland Classes	14
<i>Palustrine Forested Wetlands (PFO)</i>	14
<i>Palustrine Emergent Wetlands (PEM)</i>	14
<i>Palustrine Aquatic Bed Wetlands (PAB)</i>	15
<i>Palustrine Unconsolidated Bottom Wetlands (PUB)</i>	15
Summary	15
Wetland Assessment Results.....	16
Significant Wetlands Determination	17
Next Steps	18

Appendices

- Appendix A. Definitions
- Appendix B. Wetland Characterization Sheets
- Appendix C. Field Data Forms
- Appendix D. OFWAM Answer Sheets and Locally Significant Wetland Determination
- Appendix E. Wetland Assessment Summary Sheets
- Appendix F. GIS Data Log
- Appendix G. DSL Wetland Determination Files
- Appendix H. Technical Staff and Qualifications
- Appendix I. References

Figures

- Figure 1. Local Wetland Inventory Map

Introduction

The City of Junction City, through a grant from the Oregon Department of Land Conservation and Development, retained a consultant team led by Winterbrook Planning to conduct a Local Wetland Inventory (LWI) within the City's Urban Growth Boundary (UGB). The LWI and associated maps will inform local planning work and help guide future growth of the Junction City community.

This report provides a summary of LWI methods and findings, together with wetland inventory maps. Wetland data sheets, characterization and assessment forms, and other supporting documentation are contained in the appendices to this report.

Once approved by the Department of State Lands (DSL), the LWI replaces the National Wetlands Inventory (NWI) and is incorporated into the Statewide Wetlands Inventory. In Junction City, the LWI will fulfill the location and quantity information required for State Goal 5 inventories. A wetland quality assessment was also conducted concurrently with the LWI using the Oregon Freshwater Wetland Assessment Methodology (OFWAM) developed by DSL. Wetlands meeting the criteria for "Locally Significant Wetlands" will be analyzed further to determine appropriate local conservation measures.

Summary of Findings

The LWI was conducted in two phases: a planning phase in which existing wetland data and maps were collected, and a field inventory phase which included field assessments and a public outreach component. Winterbrook Planning (Winterbrook) completed Phase 1 between October 2008 and January 2009, and performed the wetland inventory field work and public involvement process between February and June 2009.

The LWI identifies a total of 14 wetlands within the study area (the City's UGB). Of these 14 wetlands, four were channels constructed or modified to address stormwater and flood management issues. Wetlands within Junction City range from one-half to 214 acres in size, with a combined area of 265.64 acres. In addition to these wetlands, the LWI identifies eight "probable wetlands" of less than one-half acre in size.

Winterbrook evaluated the wetlands to determine whether any met the criteria for Wetlands of Special Interest for Protection. None of the wetlands evaluated in this LWI met those criteria.

Winterbrook evaluated inventoried wetlands against the state's criteria for Locally Significant Wetlands (LSW) and found that 13 of the wetlands met the criteria. Three of the flood management channels qualified as LSWs based on their "hydrological control" function.

The total area of significant wetlands is 264.44 acres or 14.7 percent of the total land area within the Junction City UGB.

Study Area Overview

The study area for the LWI is coterminous with the City's UGB (see Figure 1). The general limits of the study follow 18th Street on the northern boundary, extend west to include the sanitary treatment facilities on the western part of Junction City, and extend south in a long corridor between Highway 99 and the Union Pacific Railroad tracks, terminating at Skinner Lane. The eastern boundary generally follows the city limits along Deal Street and Alder Street, extending east to Bergstrom Park at Dorsa Street.

Landscape Setting

Junction City lies near the southern end of the Willamette Valley. It is approximately 12 miles northeast of Eugene. The city lies between the Willamette River, two miles to the east, and the Long Tom River, three miles to the west. The dominant land use of the area outside Junction City's UGB is agricultural production. Residential, retail, institutional and light industrial uses are concentrated inside the UGB.

Climate

Weather patterns generally move west to east across the region, originating in the Pacific Ocean and crossing the Coast Range and enter the western portion of the Willamette River valley before reaching Junction City. The region's climate is tempered by the winds from the Pacific Ocean.

According to the Soil Survey of Lane County, the Junction City area is characterized by dry, warm summers and mild wet winters. The area receives approximately 42 inches of precipitation annually. Precipitation has a strongly seasonal pattern, with 90 percent falling between October and May. Snowfall is uncommon at Junction City, which lies near the valley floor. Chart 1 below compares actual precipitation during the water year of the site investigations with the long-term average by month. Site investigations occurred between February and June 2009. Note that June precipitation is through the June 2 site visit only.

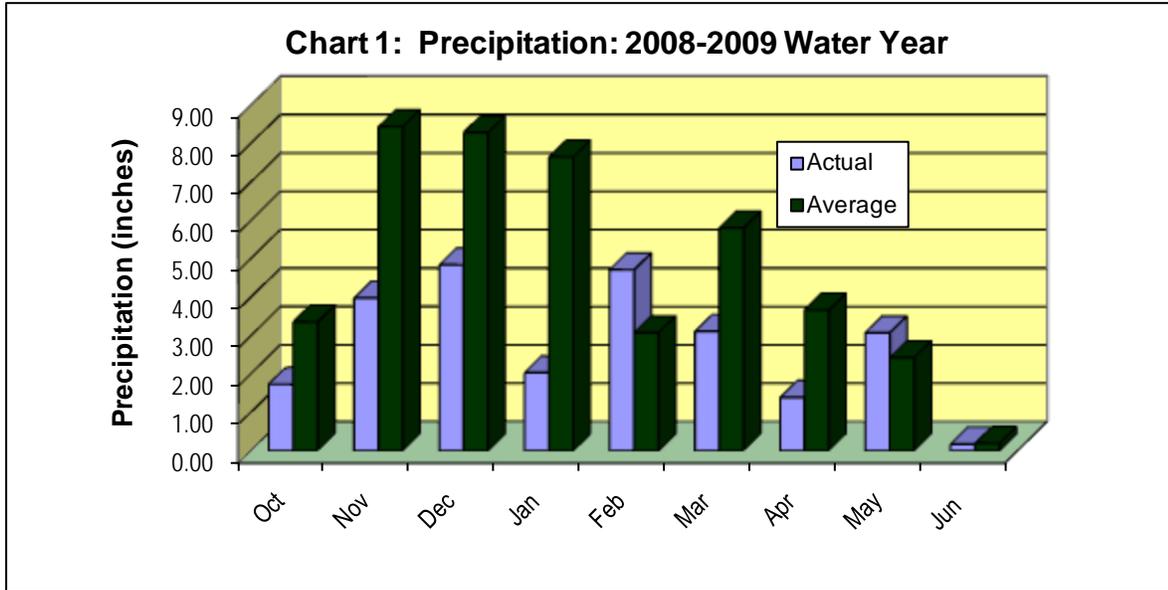
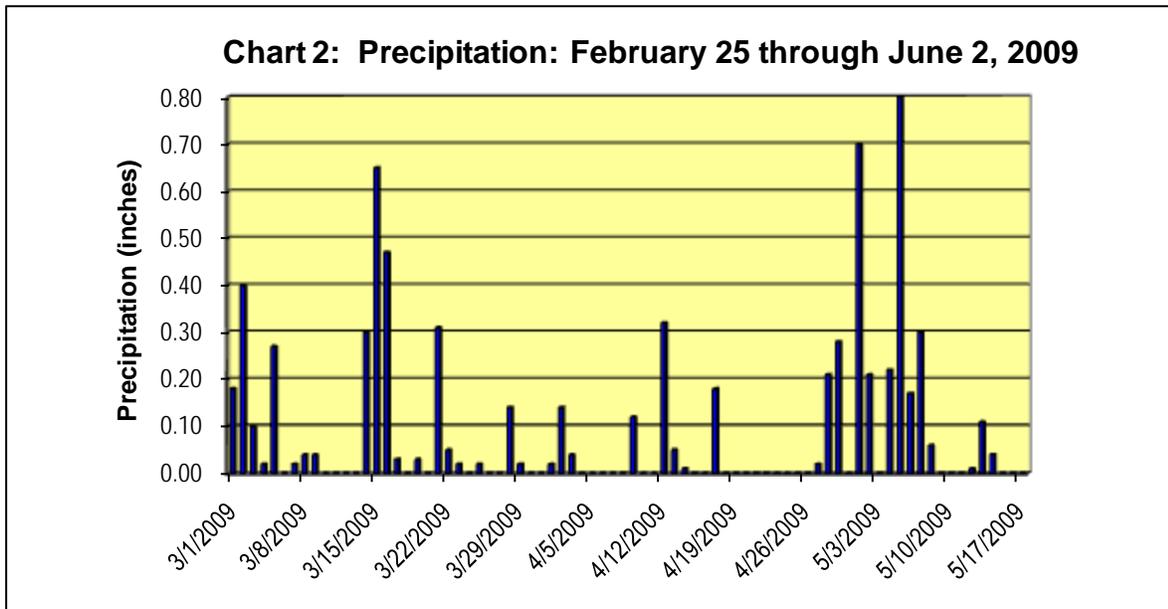


Chart 2 below shows the actual precipitation received in the study area for the two weeks preceding each of the data collection site visits. Rainfall was sporadic, with the bulk of the precipitation received coinciding with several storms that moved through the area.



Topography

The study area sits on the valley floor between the Willamette River and Long Tom River. Some slight dissection of the overall landform occurs at the different canals and along the banks of Flat Creek. Otherwise, the study area is nearly flat, sloping very gently from south to north. Elevations in the study area range from 321 feet to 357 feet (WGS84), with the highest elevations in the southern end of the study area and the lowest in the north.

Hydrology

The Flat Creek watershed (6th order Hydrologic Unit Code) covers the entire study area, and Flat Creek is the only named stream within the area. This stream drains to the Long Tom River outside the UGB to the north. Flat Creek is a perennial stream that also serves as an overflow channel of the Willamette River. Flat Creek has been channelized within the UGB. It makes a very short crossing through the UGB (700 linear feet) just south of the Prairie Road/Highway 99 intersection. The channel has heavy noxious weed cover, with reed canarygrass in the wetter portions and Himalayan blackberry above. Some remnant trees provide limited habitat and thermal cover. Primary sources of hydrology are overland flow, direct precipitation, and stormwater runoff.

The drainage network within the UGB comprises three main branches. These branches have been altered by development to constrain their lateral movement and, in some cases, to widen them and harden the beds and/or banks. These features receive most of the stormwater runoff from adjacent developed areas. Because of the altered nature of these features, they are described as the Eastern, Central, and Western Canals (a similar feature, Bergstrom Canal, crosses only a short section of the study area).

The widening of the natural drainageways through the UGB was accomplished to improve the capacity of the drainages to collect and convey floodwater. During periods of heavy rain or snowmelt, runoff can exceed the ability of the drainage system. Because there is so little topographic gradient in this area and soil permeability is constrained in some areas, water features do not drain quickly. Additionally, high water elevations in the Willamette River can also restrict outflow from the channels and contribute to increased residence time and potential for local flooding.

Hydrology of wetlands is primarily driven by flows in the canals. Greatest saturation and/or inundation occurs during the winter months when local runoff is at its peak and the potential for high flows downstream creating flow restrictions is highest. Due to the low gradient, canals and associated wetlands are slow to drain, with some areas of permanent or near-permanent standing or very slow-flowing water.

Geology

Junction City lies between the Coast Range, which is comprised mainly of marine sedimentary rock, and the Cascade Range, which was formed through volcanic processes. The region is characterized by a thick layer of alluvial material derived from the volcanic and sedimentary sources on either side. The two main sources of sediment are clay, silt, and sand associated

with historic flooding from glacial Lake Missoula. These floods deposited sediments as far south as Eugene. The second main source of sediment is alluvial materials from recent alluvial activity from the Willamette River and its tributaries.

Soils

Soils in the Junction City UGB generally fall into two groups: better drained soil series on terraces and more poorly draining material in stream and canal corridors. The Coburg, Conser, and Malabon series were the most commonly encountered soils along waterways. Table 1 below provides a summary of key features of the soils within the Junction City study area. These features include the slope drainage class, hydrologic group, and whether the soil is classified as hydric or has significant inclusions of hydric soil series.

Table 1. Soil Series in the Study Area

Soil series	Map unit	Slope	Drainage class	Hydric	Hydric Inclusions	Hydrologic Group
Bashaw clay	8	0-1%	Poorly drained	Yes	Awbrig, Conser, Courtney, Natroy	D
Chapman loam	24	0-3%	Well drained	No	Stream terraces	B
Coburg silty clay loam	31	0-3%	Moderately well drained	No	Conser	C
Coburg-Urban Land complex	32	0-3%	Moderately well drained	No	Conser	C
Conser silty clay loam	33	0-2%	Poorly drained	Yes	Awbrig, Bashaw	D
Malabon silty clay loam	75	0-3%	Well drained	No	--	C
Malabon—Urban Land complex	76	0-3%	Well drained	No	--	C
Oxley gravelly silt loam	100	0-3%	Somewhat poorly drained	No	Courtney	C
Oxley-Urban Land complex	101	0-3%	Somewhat poorly drained	No	Courtney	C
Salem gravelly silt loam	118	0-3%	Well drained	No	--	B

Vegetation

The UGB supports several distinct vegetation communities. The most common communities include developed/urban, agricultural, and wetland. The wetland community is further broken down by Cowardin classification, to palustrine emergent, palustrine forested, and palustrine unconsolidated bottom.

The majority of the UGB is developed or in an urban setting; consequently, vegetation communities have frequently been altered to facilitate development or as an unintended consequence of nearby activities. In many cases, areas adjacent to the canals and wetlands were filled in to expand pads for retail buildings or auxiliary structures. As a result, many trees and shrubs were removed and disturbed areas allowed to recolonize with invasive, non-native species such as Himalayan blackberry (*Rubus armeniacus*), reed canarygrass (*Phalaris arundinacea*), and turf grasses.

Large industrial properties in the southern part of the UGB support some of the largest and highest-value native plant communities. In particular, Wetland CC-04 on the LWI map is a large forested wetland complex with considerable vegetation community diversity (see Photo 1).



Photo 1. View of Wetland CC-04

Vegetation in areas of residential and institutional use (i.e., churches, schools) is more variable. In some areas, disturbance is nearly total, extending down into riparian zones and recontouring the dimensions of the preexisting wetland. Portions of the Bergstrom and western canals, for example, were channelized to a trapezoidal cross-section and lined with rock on the bottom and embankments. The vegetation in these areas is limited to those weedy annual species that can colonize the bare substrate following routine herbicide applications performed as part of the maintenance protocol. Photo 2 shows a typical view of these features in the wet season.



Photo 2. View of the Bergstrom Canal (looking south)

The edges of a large wetland near Highway 99 and Ivy Street (EC-01) were filled to expand the developable area above. In contrast, Wetland CC-01 near Laurel Elementary School retains its Oregon ash (*Fraxinus latifolia*) tree cover, possesses a buffer of undeveloped upland around it, and still supports some native herbaceous vegetation such as common camas (*Camassia quamash*) despite adjacent educational uses. Some reaches of the canal system also retain cover from adjacent uplands, such as the reach of the Central Canal near Rose Street shown in Photo 3.



Photo 3. Ash Canopy over reach of Central Canal

Most of the southern end of the project is used for agriculture; the routine cultivation, planting, and harvest of hay, wheat, and other commodity crops have largely eradicated native plant communities in these areas within the farmable portions of the properties. Some remnant areas are present along fencerows, utility lines, highway rights-of-way, and where stands of black cottonwood remain.

Wetlands are those areas with sufficiently prolonged surface hydrology or high water tables to exhibit hydric soil characteristics and support vegetation adapted to life in temporarily or permanently saturated soil. They are often found at the margins of aquatic sites such as ponds or the canals that cross the UGB, but can also be associated with depressional and other landforms.

Palustrine forested wetlands (PFO) are generally dominated by Oregon ash and black cottonwood (*Populus balsamifera* v. *trichocarpa*). A shrub stratum may or may not be present, but typical species include clustered rose (*Rosa pisocarpa*), poison oak (*Rhus toxicodendron*), and saplings of the above tree species. Species in the herbaceous stratum varied widely in cover and composition but included turf grasses, reed canarygrass, sedges (*Carex* spp.), common camas, and a variety of ornamental and invasive annual and perennial species. Palustrine emergent wetlands were commonly dominated by reed canarygrass and turf grasses but some retained vestigial native plant community components such as sedges, rushes (*Juncus* spp.) and bulrushes (*Scirpus* spp.).

Inventory Methods

The inventory of wetlands follows the guidelines and rules for conducting LWIs adopted by the DSL. New LWI rules were adopted in 2008 while this project was underway and inventory methods were adapted to comply with the updated rules.

Two levels of investigation were conducted for the inventory of wetlands: a review of existing information and a field inventory. Key elements of the inventory methodology are summarized in this section.

Review of Existing Information

Winterbrook reviewed existing literature, maps, and data sources to identify wetlands and site characteristics indicative of wetlands within the study area.

Key sources of information were:

- Oregon Department of State Lands (DSL), wetland determination files (all sites within Junction City UGB plus a one-mile buffer area);
- National Wetlands Inventory (NWI) data (U.S. Fish and Wildlife Service, 2008);
- Lane County Soil Survey data (U.S.D.A. Natural Resource Conservation Service, 2003);
- FEMA Floodplain maps;
- Color aerial photography (USDA, 2005; 0.5 meter resolution); and
- Color aerial photography (NAIP, Oregon DAS/GEO, Summer 2009; 1 meter resolution).

The City and County Geographic Information System (GIS) data layers served as the base for the preliminary wetland mapping. The DSL determination files were digitized in GIS and included on the preliminary mapping. This map includes the following items:

- DSL approved wetland determinations/delineations (with file numbers referenced)
- NWI wetlands
- Hydric soils
- Soils with hydric inclusions
- Other potential wetland areas

This map was used to create field maps covering the City. Other sources of data obtained from Junction City and Lane County are listed in the GIS Data Log (Appendix F). A list of previous delineations performed on Junction City area wetlands is provided in Appendix G.

On November 12, 2008, a meeting was held with DSL and City of Junction City representatives to review the preliminary wetland map, identify additional data sources, and discuss the field inventory schedule and methodology.

Field Inventory

Winterbrook conducted the field inventory in accordance with LWI standards established under OAR 141-86-180 through 240, as amended January 1, 2009. Wetland boundaries were identified using the COE Wetland Delineation Manual Technical Report Y-87-1 (Environmental Laboratory 1987) and the 2008 Regional Supplement. The 1987 manual defines wetlands as requiring indicators of hydric soils, a dominance of hydrophytic vegetation, and wetland hydrology.

Where property access was permitted, wetland boundaries were verified in the field. Location of sample points and mapping conventions followed state LWI standards and were not intended to define the limits of regulatory jurisdiction. Under state guidelines, LWI wetland boundaries are mapped at an accuracy of approximately 5 meters (16.4 feet). Additional on-site wetland investigation and boundary delineation may be needed to determine whether state or federal regulations apply to a particular development proposal.

Each inventoried wetland was assigned a unique identification code. The entire UGB is within the Flat Creek ("FC") basin and no other named streams or waterways are identified on City or USGS topographic maps. To aid in identifying the main waterways through Junction City, four "canals" were identified: East Canal ("EC"), Central Canal ("CC"), West Canal ("WC") and Bergstrom Canal ("BC"). This later feature is named for Bergstrom Park in which the canal is partially located. These features are trapezoidal channels excavated to provide stormwater and flood conveyance through the City. Wetlands are generally associated with these canal features or with the mainstem of Flat Creek. Thus, for example, wetland codes are referenced "FC-01" (wetland along Flat Creek) or "CC-01" (wetland along central canal), with the numbering beginning at the downstream end of the water feature.

For wetlands where access was granted, Winterbrook typically established between two and six sample plots at locations that best characterized the wetland. Soil pits were excavated up to a depth of 20 inches in selected locations. The soil profiles were examined for hydric soils and wetland hydrology field indicators. The percent cover of the dominant species of the plant community was estimated at each sampling location. General characteristics of each wetland were documented, including approximate wetland size, classification¹, soil type, hydrologic source, dominant plant species, field dates, field investigators, a summary of the wetland context, and other relevant data. The LWI map shows the location of wetlands and the individual sample plots. Wetland characteristics were recorded on individual summary sheets contained in Appendix B. Appendix C contains completed Wetland Determination Forms for wetlands sampled using the on-site method.²

Wetlands identified in DSL determination files³ were visually verified where possible to determine whether wetlands were still present and of the same general size and configuration as when delineated. Owners did not grant access to these wetlands or were not available during

¹ This includes both Cowardin and hydrogeomorphic (HGM) classifications and subclassifications as defined in the revised LWI rules (also see Appendix A, Definitions).

² Data from certain off-site determinations is also included in this appendix.

³ These files contain documentation on wetland investigations and concurrence letters from DSL validating the report findings.

field survey period, so no on-site verifications were completed. Where visual access was possible, wetland boundaries were visually confirmed based on vegetation and hydrology.

In cases where property access was denied, Winterbrook used off-site determination methods, including existing NWI and soil survey data and maps, interpretation of aerial photos, and off-site observation from nearby public rights-of-way or adjacent properties where access was granted. Areas exhibiting wetland indicators such as wetland hydrology or dominant hydrophytic vegetation were noted.

Wetland Function and Condition Assessment

Wetland quality was assessed using the Oregon Freshwater Wetland Assessment Methodology (OFWAM). The OFWAM evaluates the extent to which a wetland performs certain functions based on specific factors. It assesses the following ecological functions and values: wildlife habitat, fish habitat, water quality, hydrologic control, education, recreation, sensitivity to impact, enhancement potential, and aesthetic quality. As clarified in the revised LWI rules, only the first four functions (wildlife habitat, fish habitat, water quality and hydrologic control) have a direct bearing on the wetland significance criteria. In addition, where a wetland was located on public lands, education functions are also assessed to determine whether the wetland is significant as an educational resource.

Following is a summary of the key functions evaluated.

- *Wildlife habitat:* This function addresses the habitat diversity for species usually associated with wetlands, without emphasizing one particular species. A diverse plant community typically increases animal community diversity. The OFWAM assesses whether wetlands provide diverse habitat for wildlife, provide habitat for some wildlife species, or provide no habitat function.
- *Fish habitat:* This function addresses how a wetland contributes to fish habitat in streams, ponds or lakes associated with a wetland. The questions are suitable for both warm water and coldwater fish and no particular species are emphasized. Wetlands that support fish habitat include those with adjacent vegetation that provides shade, cover, and food sources. Under OFWAM, a wetland's fish habitat function can be assessed as intact, impacted or degraded, or lost or not present.
- *Water quality:* This function addresses the potential of a wetland to reduce the impacts of excess nutrients in stormwater runoff on downstream waters. A wetland can contribute to water quality by trapping sediment during periods of heavy rainfall, keeping it from entering adjacent downstream resources. It also traps nutrients such as nitrogen and phosphorus, helping to minimize algal blooms and subsequent oxygen deficiencies downstream. Under OFWAM, a wetland's water quality function can be assessed as intact, impacted or degraded, or lost or not present.
- *Hydrologic control:* This function addresses the effectiveness of a wetland in reducing downstream flood peaks and storing floodwaters. Wetlands can act as flood regulators, trapping water during periods of high precipitation or flooding, and then slowly releasing

the flow downstream. Under OFWAM, a wetland's hydrologic control function can be assessed as intact, impacted or degraded, or lost or not present.

- *Education:* This function addresses the suitability of a wetland to provide educational opportunity on land that is open or accessible to the public. Easily accessible wetlands with a diversity of plants and animals are useful in outdoor education. Under OFWAM, a wetland can have educational uses, have the potential to provide such uses, or may not be appropriate for such uses.

Winterbrook used a OFWAM field form to characterize wetlands and address specific functions that required field observation. Data collected in the field included wetland Cowardin classes, the presence and extent of vegetative cover and wetland hydrology, the character of adjacent water bodies, and other field data essential to the OFWAM assessment. The field evaluations were generally conducted from viewing areas near wetland sample plots, or from neighboring public lands where property access was not granted.

The OFWAM assessments were completed in the office using field data, aerial photographs, maps, and information gathered from public agencies such as:

- Oregon Department of Environmental Quality (DEQ);
- Oregon Department of Fish and Wildlife (ODFW);
- Oregon Department of Forestry (DOF);
- Oregon Natural Heritage Information Center (ORNHIC); and
- U.S. Fish and Wildlife Service (USFWS).

The assessment result is a determination of whether a function is high (intact or diverse), moderate (impacted/degraded), or low (lost or not present). Factors such as size of wetland, biological diversity, presence of rare or sensitive species, and adjacent land uses are used in the rating system. These ratings are used in the evaluation of wetland significance as discussed below. For example, any wetland with a "diverse" wildlife habitat function, or an "intact" fish habitat, water quality or hydrologic control function meets a criterion for a "locally significant wetland."

Wetlands of Special Interest for Protection

The OFWAM also includes a set of questions to assess whether any wetlands within the study area should be considered Wetlands of Special Interest for Protection (WSIP). The questions address whether a wetland is in a management plan or is protected by regulatory rules and statutes. They address topics such as the presence of threatened, endangered and sensitive species or critical habitat, whether the wetland is considered rare or unique. An affirmative answer to any one of the ten questions will place the wetland into the WSIP category.

Locally Significant Wetland Criteria

Following completion of the LWI and the OFWAM functional assessment, all wetlands were evaluated against DSL's wetlands significance criteria (OAR 141-086-0350). In addition to a high rating for any of the four aforementioned functions (wildlife habitat, fish habitat, water quality and hydrologic control), the State's mandatory criteria include wetlands that:

- Are located within 1/4-mile of a “water quality limited stream” and have “intact” or “impacted or degraded” water quality function;
- Contain one or more rare plant communities;
- Are inhabited by any species listed by the federal government as threatened or endangered, or listed by the state as sensitive, threatened or endangered; or
- Have a direct surface water connection to a stream segment mapped by the ODFW as habitat for indigenous anadromous salmonids, and have “intact” or “impacted or degraded” fish habitat function.

The DSL rule includes two additional criteria used to determine the significance of wetlands at the discretion of the local government agency. These criteria are:

- The wetland represents a locally unique native plant community; and,
- The wetland is publicly owned and determined to "have educational uses" using OFWAM, and such use by a school or organization is documented for that site.

Mapping Procedures

Field maps were prepared using the latest available (2005) digital color ortho-photographs.⁴ Information shown on the field maps included existing wetland data (including DSL wetland determinations and NWI wetlands), hydric soils, soils with hydric inclusions, streams, water bodies, property boundaries, and public rights-of-way. All data were geo-referenced with the aerial imagery and the City parcel data. Other aerial based maps were used to obtain more detailed information. For example, Google Earth and the Bird's Eye View feature on Bing Maps provided high-resolution, recent aerial images that allowed evaluation of vegetation communities and, in some cases, observation of standing water or saturated soils.

Wetlands and sample plots were mapped on the field maps and selected GPS waypoints were taken at data plots and along wetland boundaries. Additional reference points were used to establish the location and perimeter of each wetland polygon. These references included property lines (e.g., survey corner markers), building lines, streets, utilities, streams, trees and other mapped physical features that could aid determination of location and distances on the ground. Wetland boundaries and sample plots were then digitized and registered with the base map in GIS.

Public Involvement Process

Public Outreach

Public involvement and outreach for the Junction City LWI began in October 2008. At an October 1, 2008 public meeting, Winterbrook presented information on the LWI process and schedule to the Junction City Citizen Comprehensive Planning Committee.

Letters notifying potentially affected landowners about the LWI process were sent March 6, 2009. The letters contained information regarding what data collection methods and how that

⁴ Winterbrook later consulted 2009 aerial imagery, which first become available after the field work was completed.

information would be used; it also contained a right-of-entry request for landowners to complete if they were willing to allow the field team on their property. The notification letters also contained an invitation to an open house on March 25, 2009.

On March 25, 2009, an open house was held at the Junction City offices. The meeting was led by Kay Bork of the City of Junction City and Winterbrook Planning. Anna Buckley from DSL participated in both the meeting and the presentation. The open house provided information about the process, status, and preliminary findings for wetland resources. Questions and requests from landowners were answered and several property owners provided access permission forms at the meeting and made arrangements for site visits with the field team.

Beginning in March, Winterbrook began contacting property owners who allowed access to arrange site visits. Contacts and coordination with owners continued throughout the field inventory phase.

Agency Coordination

Coordination with DSL began in the Fall of 2008. A kickoff meeting was held at DSL offices with Janet Morlan and Anna Buckley on November 12, 2008. The City's Planning Director Kay Bork and Winterbrook's Tim Brooks attended the meeting. Winterbrook met subsequently with DSL staff and completed a review of all DSL files for the Junction City area. A Junction City field tour with Anna Buckley occurred on March 25, 2009. Ongoing phone and email communications between Winterbrook and DSL on project methodology, schedule and technical questions occurred between Fall 2008 and Fall 2009.

Other public agency contacts and coordination included Lane County's GIS Department and Junction City's Planning and Public Works Departments.

Inventory Results

Overview

This LWI provides maps and information about wetlands located within the Junction City UGB. The LWI serves as a planning tool for balancing the protection of wetland functions with other community needs.

A preliminary reconnaissance of the study area was completed in May, 2008. The wetland inventory field work was performed between February and June, 2009.

A total of 14 wetlands were identified within the City UGB, in addition to eight "probable wetlands" less than one-half acre in size. Of these 14 mapped wetlands, four were channels constructed or modified to address stormwater and flood management issues. Wetlands within the Junction City UGB range from one-half to 214 acres in size. The total area of wetlands within the City is 265.64 acres.

Winterbrook evaluated the wetlands to determine whether any meet the criteria for Wetlands of Special Interest for Protection. None of the wetlands evaluated in this LWI meets those criteria.

Wetlands were then evaluated against the state's wetland significance criteria and 13 of the wetlands were determined to be locally significant wetlands (LSW). Three of flood management channels qualified as LSWs based on their "hydrological control" function. Wetland BC did not qualify as locally significant.

Due to restricted access and visibility, none of the DSL-verified wetlands could be verified on site. One DSL wetland boundary (DET 99-0208, a segment of the "east canal" near EC-02) was adjusted from its mapped location to better reflect current aerial photo and parcel data showing the canal. Another area of wetlands (DET 90-0137, near FC-02) appears at least partially filled in recent aerial photographs, and its boundary was adjusted accordingly. A recent determination (DET 09-0516) provided by DSL was also digitized and integrated into the FC-02 boundary mapping.

Wetland Classes

Wetlands in Junction City fall into four primary (Cowardin) classifications: Palustrine Forested, Palustrine Emergent, Palustrine Aquatic Bed, and Palustrine Unconsolidated Bottom. These classifications are summarized below.

- *Palustrine Forested Wetlands (PFO)*

Forested wetlands generally include wetlands or portions of wetlands with cover by woody species over 20 feet in height exceeding 30 percent. Forested wetlands are located primarily east of Highway 99S, and south of 1st Avenue.

Forested wetlands in Junction City include a combination of deciduous species dominated by Oregon ash (*Fraxinus latifolia*) and black cottonwood (*Populus trichocarpa* v. *balsamifera*). Other tree species include red alder (*Alnus rubra*) and Oregon white oak (*Quercus garryana*) near wetland edges. Understory vegetation includes snowberry (*Symphoricarpos albus*), camas (*Camassia quamash*), and reed canarygrass (*Phalaris arundinacea*).

These wetland habitats generally provide high quality habitat for a wide variety of birds, mammals, amphibians and aquatic organisms. Structural and species diversity is generally high, though more limited in areas dominated by a reed canarygrass understory.

- *Palustrine Emergent Wetlands (PEM)*

Emergent wetlands include marshes and shallow ponds dominated by grasses and other herbaceous plants. These resources generally have less than 30 percent cover by trees and/or shrubs and greater than 30 percent cover by grasses, grasslikes, and other herbaceous flora. This is the most common wetland type within the study area; 12 of the 14 LWI wetlands are either emergent or contain an emergent component. All of the canals are also classified as PEM with modifiers "C" for seasonally flooded and "x" for excavated.

Most emergent wetlands in Junction City are dominated by the invasive, non-native reed canarygrass. Other species include sedges, rushes, and both native and non-native grasses.

Small mammals and snakes are commonly found within this habitat type, which in turn attract northern harriers, red tail hawks, owls, and coyotes that feed upon them. Overall habitat value of this wetland type is low to moderate, depending of the extent of reed canarygrass infestation and the extent of channelization and maintenance (the canal system provides the lowest quality habitat, although it is a significant seasonal source of water).

- *Palustrine Aquatic Bed Wetlands (PAB)*

Palustrine aquatic beds include wetlands and deepwater habitats dominated by plants growing mainly on or below the water surface in most years. These features are generally permanently flooded. Within the Junction City UGB, one wetland was mapped as PAB (CC-02).

- *Palustrine Unconsolidated Bottom Wetlands (PUB)*

Palustrine Unconsolidated Bottom habitats generally include ponds and standing water habitats whose substrate is undetermined and whose plant cover does not exceed 30 percent. Open water areas provide important and necessary habitat for fish, aquatic invertebrates, water dependent mammals, waterfowl and shorebirds. In Junction City, two wetlands were identified with a significant open water component (EC-01 and CC-03).

Summary

Table 2 summarizes the distribution of wetlands by Cowardin classification within the UGB. It should also be noted that some wetlands contained a patchwork of classes; however, only distinct Cowardin classes of more than one-quarter acre were mapped.

Table 2. Wetland Cowardin Classifications

Cowardin Class	Area (acres)
PFO	14.03
PEM	249.62
PAB	0.73
PUB	1.26
Total	265.64

The hydrogeomorphic (HGM) classification for 10 of the City's wetlands was Riverine Flow-through (RFT). The total area of RFT wetlands is 23.89 acres. Wetlands CC-04, FC-01, FC-02 and a portion of FC-03 are classified as Flats. The total area of Flats is 240.54 acres. Wetland CC-01 is a Depressional Outfall (DO) wetland; it is the smallest wetland at 0.48 acres. The

remaining wetland (CC-02) is a Depressional Closed, Permanently Flooded (DCP) wetland; it is 0.73 acres in size.

Table 3 provides a summary of the classification and size of wetlands by watershed within the study area. The wetlands are mapped in Figure 1.

Table 3. Wetland Classification and Size

Sub-Watershed/Name	Wetland code	Cowardin Class	HGM Class	Area (acres)
Bergstrom Canal (BC)	BC	PEMCx	RFT	1.20
Central Canal (CC)	CC	PEMCx	RFT	3.82
	CC-01	PEMC, PFO1	DO	0.48
	CC-02	PABFx	DCP	0.73
	CC-03	PUBFh	RFT	0.52
	CC-04	PFO1, PEMC	RFT/Flats	14.45
East Canal (EC)	EC	PEMCx	RFT	3.38
	EC-01	PUB3G, PEMG	RFT	1.95
	EC-02	PEMC	RFT	0.87*
Flat Creek (FC)	FC-01	PEMf	Flats	213.76
	FC-02	PEM/PFOC	Flats	19.85
	FC-03	PEMCd	RFT/Flats	3.32
West Canal (WC)	WC	PEMCx	RFT	1.36
	WC-01	PEMC	RFT	0.76
TOTAL AREA				265.64

* Of this, only 0.06 acre is located within the study area. The "total area" figure includes only that portion of the wetland within the UGB.

Wetland Assessment Results

Winterbrook assessed wetland quality for each wetland unit using the Oregon Freshwater Wetland Assessment Methodology (OFWAM). As provided in the new LWI rules, only the four wetland functions (wildlife habitat, fish habitat, water quality, hydrologic control) need to be assessed, since they relate directly to the wetland significance criteria. In addition, where a wetland was located on public lands, education functions were assessed to determine whether the wetland was significant as an educational resource. Table 4 provides the results of the OFWAM assessments for the four key wetland functions.

Table 4. OFWAM Assessment Results

Wetland Code	Wildlife	Fish	Water Quality	Hydrologic Control
BC	Some	Impacted	Impacted	Impacted
CC	Some	Impacted	Impacted	Intact
CC-01*	Diverse	Impacted	Intact	Impacted
CC-02	Some	N/A	Impacted	Intact
CC-03	Some	Impacted	Impacted	Intact
CC-04	Diverse	Impacted	Intact	Intact

Wetland Code	Wildlife	Fish	Water Quality	Hydrologic Control
EC	Some	Impacted	Impacted	Intact
EC-01	Some	Impacted	Intact	Intact
EC-02	Some	Impacted	Intact	Intact
FC-01	Some	Impacted	Impacted	Intact
FC-02	Some	Impacted	Intact	Impacted
FC-03	Some	Impacted	Intact	Impacted
WC	Some	Impacted	Impacted	Intact
WC-01	Some	Impacted	Intact	Impacted

* This wetland also has educational uses.

Table 5 summarizes the relative distribution of assessments for each function, with the percentage of total wetlands ranking high in each category. Most of the significant wetlands provided high hydrologic control function, six provided high water quality function and two provided high wildlife habitat function.

Table 5. Wetland Assessment Results for Key Wetland Functions

Function	High	Moderate	Low	N/A	% Wetlands Assessed High
Wildlife habitat	2	12	0		14%
Fish habitat	0	13	0	1	0%
Water quality	7	7	0		50%
Hydrologic control	9	5	0		64%

Significant Wetlands Determination

Following completion of the wetland inventory and functional assessment, Winterbrook evaluated all wetlands against DSL's wetlands significance criteria.

To be considered for significance, wetlands must not meet any of the following exclusions:

- Wetlands artificially created entirely from upland that are:
 1. Created for the purpose of controlling, storing, or maintaining stormwater; or
 2. Active surface mining or active log ponds; or
 3. Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish; or
 4. Less than one acre in size and created unintentionally as the result of:
 - a. Irrigation water overflow or leakage; or
 - b. Construction activity not related to compensatory mitigation for permitted wetland impacts; or
 5. Of any size and created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

- Wetlands or portions of wetlands that are contaminated by hazardous substances, materials or wastes as per the following conditions:
 1. The wetland is documented as contaminated on either the U.S. Environmental Protection Agency's (EPA) National Priority List, or the Department of Environmental Quality's (DEQ) Inventory of Hazardous Substance Sites.
 2. Only the portion of the wetland affected by such hazardous substances or wastes shall be excluded from the LSW analysis. Affected portions shall be delineated in consultation with EPA and DEQ, and shall include areas potentially disturbed by clean-up activities.
 3. Contaminated wetlands that have subsequently been removed from the NPL or DEQ Inventory following clean-up shall be re-evaluated under the LSW criteria at the next periodic review.

Wetlands not meeting any of the exclusions above must meet one or more of the following mandatory criteria to be deemed LSWs:

1. Wetland provides a diverse wildlife habitat, intact fish habitat, intact water quality function, or intact hydrologic control function;
2. Wetland is located within 1/4-mile of a "water quality limited stream" and has "intact" or "impacted or degraded" water quality function;
3. Wetland contains one or more rare plant communities;
4. Wetland is inhabited by any species listed by the federal government as threatened or endangered, or listed by the state as sensitive, threatened or endangered; or
5. Wetland has a surface water connection to a stream that is habitat for indigenous anadromous salmonids and has "intact" or "impacted or degraded" fish habitat function.

In addition to the mandatory criteria, wetlands meeting either of the following optional criteria were also determined to be locally significant wetlands in Junction City. These criteria are:

1. Wetland represents a locally unique native plant community; or
2. Wetland is publicly owned and has educational uses.

As shown in Table 6, none of the inventoried wetlands met the exclusions identified above. Of the 14 wetlands, a total of 13 met one or more of the above criteria and were determined to be significant. Wetland BC did not qualify as significant. Wetland CC-01 met the optional significance criterion related to educational uses.

Next Steps

Following approval of the Junction City LWI by DSL, a notice of the approved inventory will be sent to affected landowners. The City will adopt the LWI and adopt or amend its local wetland protection program consistent with the Goal 5 administrative rule. Junction City's wetland planning process is planned to be completed in 2011-2012.

Table 6. OFWAM Wetland Assessment and LSW Results

Wetland Code	Acres	Exclusion?	Mandatory Criteria							Optional Criteria		Locally Significant Wetland?		
			Wildlife	Fish	Water Quality	Hydrologic Control	1/4 Mile of WQL Stream	Rare Plant Community	Listed Species	Directly Connects to Salmon Habitat	Local Unique Native Plant Community		Public With Educational Use	
BC	1.20	No						No	No	N/D	No	No	No	No
CC	3.82	No				Intact		No	No	N/D	No	No	No	Yes
CC-01	0.48	No	Diverse		Intact			No	No	N/D	No	No	Yes	Yes
CC-02	0.73	No				Intact		No	No	N/D	No	No	No	Yes
CC-03	0.52	No				Intact		No	No	N/D	No	No	No	Yes
CC-04	14.45	No	Diverse		Intact	Intact		No	No	N/D	No	No	No	Yes
EC	3.38	No				Intact		No	No	N/D	No	No	No	Yes
EC-01	1.95	No			Intact	Intact		No	No	N/D	No	No	No	Yes
EC-02	0.87*	No			Intact	Intact		No	No	N/D	No	No	No	Yes
FC-01	213.76	No				Intact		Yes	No	N/D	No	No	No	Yes
FC-02	19.85	No			Intact			No	No	N/D	No	No	No	Yes
FC-03	3.32	No			Intact			Yes	No	N/D	No	No	No	Yes
WC	1.36	No				Intact		No	No	N/D	No	No	No	Yes
WC-01	0.76	No			Intact			No	No	N/D	No	No	No	Yes

* Total area of wetland; area within UGB is 0.06 acre.

WQL: Water quality limited (per DEQ)

N/D: None Detected (based on incidental observation during inventory; a formal sensitive species survey was not completed for this project).

Appendix A. Definitions

Basin – a topographical entity within which all the surface water draining to a single point falls; some of the surface water may have come from groundwater fed by geological strata outside the basin.

Cowardin Class or subclass – the wetland classification according to the U.S. Fish and Wildlife Service's *Classification of Wetlands and Deepwater Habitats of the United States*, Cowardin et al., 1979.

Emergent – a plant that grows rooted in shallow water, the bulk of which emerges from the water and stands vertically. Usually applied to non-woody vegetation.

Emergent Wetland – a subclass of palustrine system (see Cowardin Class above), a wetland characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens.

Enhancement – an improvement in the functions and values of an existing wetland, forest, or other natural resource.

Exotic species – -plants that are not indigenous to the Pacific Northwest (see invasive species).

Field Verification – to walk over and/or visually check an area, for example, to make a wetland determination and map wetlands (this may or may not include collecting sample plot data).

Fish habitat – those areas upon which fish depend in order to meet their requirements for spawning, rearing, food supply, and migration.

Floodplain – river valley apart from the river channel which is inundated only in a flood event, attenuating the flood discharge. The 100-year floodplain shows the flood with a 100-year recurrence interval.

Forested Wetland – a subclass of palustrine system (see Cowardin Class above), a wetland characterized by woody vegetation that is six meters (20 feet) tall or taller.

Geographic Information System (GIS) – a system of hardware, software and data storage that allows for the analysis and display of information that has been geographically referenced.

Global Positioning System (GPS) – is a navigation satellite system transmitting signals that allow GPS receivers to determine the receiver's location, speed and direction. Its primary use for the Junction City inventory is to provide accurate field position data for use in GIS (see above) to verify the location of natural features such as landslide areas, wetlands and streams.

Goal 5 – Statewide Planning Goal (OAR Chapter 660, Division 23) intended to protect natural resources and conserve scenic and historic areas and open spaces.

Goal 5 Inventory – a survey, map, or description of one or more resource sites that is prepared by a local government, state or federal agency, private citizen, or other organization and that includes information about the resource values and features associated with such sites.

Growing season – the portion of the year when soil temperatures are above biologic zero at 50 cm (19.7").

Herbaceous – with the characteristics of an herb; a plant with no persistent woody stem above ground.

Hydric soil – a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.

Hydrogeomorphic (HGM) or subclass means the hydrogeomorphic classification of the wetland based upon its landscape position and hydrology characteristics, according to the HGM classification developed by the Department of State Lands.

Hydrologic Soil Group – The hydrologic soil group refers to the infiltration potential of the soil after prolonged wetting. There are four groups, generally described as follows:

- Group A Soils: High infiltration (low runoff). Sand, loamy sand, or sandy loam.
- Group B Soils: Moderate infiltration (moderate runoff). Silt loam or loam.
- Group C Soils: Low infiltration (moderate to high runoff). Sandy clay loam.
- Group D Soils: Very low infiltration (high runoff). Clay loam, silty clay loam, sandy clay, silty clay, or clay.

Hydrology – The properties, distribution, and circulation of water.

Hydrophyte – Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

Hydrophytic vegetation – See hydrophyte.

Invasive species – Those species which become established easily in disturbed conditions, reproduce readily, and often establish monocultures. Most invasive plants are non-native species. Examples of common invasive species in Junction City are: Himalayan blackberry and reed canarygrass.

Indicator – The soil, vegetation, and hydrology characteristics or other field evidence that indicate that wetlands are present.

Indigenous Anadromous Salmonids – Chum, sockeye, Chinook and Coho salmon, and steelhead and cutthroat trout that are members of the family Salmonidae and are listed as sensitive, threatened or endangered by a state or federal authority.

Local Wetlands Inventory (LWI) – A collection of maps and information about wetlands throughout a local community that provides a planning tool for balancing the protection of wetland functions with other community needs. LWIs satisfy the requirements for wetland

inventories under Statewide Planning Goal 5. Once approved, LWIs become part of the Statewide Wetlands Inventory. Mapped LWI wetland boundaries are generally accurate to within 5 meters, but may be less in areas that could not be field verified. A wetland boundary delineation may be needed to determine whether regulations apply to a development proposal.

Locally Significant Wetlands (LSW) – Those wetland sites that provide functions or exhibit characteristics that are pertinent to community planning decisions made at a local scale, for example, within a UGB. These wetland sites shall be identified by local governments according to the criteria and procedures in sections 141-086-0340 and 141-086-0350.

Native Plant Community – A recognized assemblage of plant species indigenous to Oregon. All such wetland plant communities are listed in the Classification and Catalog of Native Wetland Plant Communities in Oregon (Oregon Natural Heritage Information Center).

Offsite Determination – A wetland determination conducted without field verification using NWI maps, soils maps, and aerial photographs.

Ordinary high-water mark – The line on the shore established by the fluctuations of water and indicated by physical characteristics such as: a clear, natural line impressed on the bank; changes in the character of soil or vegetation; shelving; or the presence of a line of litter or debris.

Oregon Freshwater Wetland Assessment Methodology (OFWAM) – The method adopted by the State to evaluate and rate the relative quality of a wetland by measuring its condition and its capacity to perform certain functions, including wildlife habitat, fish habitat, water quality, and hydrologic control. The results of the OFWAM rating is used as a basis for determination of wetland significance.

OFWAM Evaluation Descriptor – a summary statement describing whether the wetland is (1) intact, (2) impacted or degraded, or (3) function is lost or not present.

Other Waters – means waters of the state other than wetlands, such as streams and non-vegetated ponds.

Probable Wetland (PW) – an area noted during the course of LWI development that appears to meet wetland criteria but is less than one half of an acre in size or is small and of undetermined size, and is mapped as a point rather than a polygon on the LWI maps.

Rare Plant Community – Relictual, uncommon or unique in Oregon, determined by number of occurrences and threats following national heritage program criteria (i.e., rarity ranking of G1-G3 or S1-S3).

Reach – A length of channel with uniform characteristics.

Restoration – Restoration is the process of repairing damage to the diversity and dynamics of ecosystems. Ecological restoration is the process of returning an ecosystem as closely as possible to predisturbance conditions and functions.

Sample Plot – A specific area on the ground where soils, vegetation and hydrology data are recorded on a field data form in order to make a wetland determination.

Scrub-shrub Wetland – A subclass of palustrine system (see Cowardin Class above), areas dominated by woody vegetation less than 6 meters (20 feet) tall. The species include tree shrubs, young trees, and trees or shrubs that are stunted because of environmental conditions.

Significance Determination – The determination of significance of a Goal 5 resource is based on:

- (a) The quality, quantity, and location information;
- (b) Supplemental or superseding significance criteria set out in OAR 660-023-0090 through 660-023-0230; and
- (c) Any additional criteria adopted by the local government, provided these criteria do not conflict with the requirements of OAR 660-023-0090 through 660-023-0230.

Soil Map Unit – A conceptual group of one to many delineations identified by the same name in a soil survey that represent similar landscape areas comprised of either: (1) the same kind of component soil, plus inclusions, or (2) two or more kinds of component soils, plus inclusions, or (3) component soils and miscellaneous area, plus inclusions, or (4) two or more kinds of component soils that may or may not occur together in various delineations but all have similar, special use and management, plus inclusions, or (5) a miscellaneous area and included soils.

Statewide Wetlands Inventory (SWI) – an inventory that contains at minimum the location, type (e.g. classification) and approximate extent of wetlands in the State of Oregon. This inventory is continually revised as additional information is received or obtained by DSL.

Stream – A watercourse created by natural processes, or one that would be in a natural state if it were not for human-caused alterations. Stream includes a channelized or relocated stream.

Top of Bank – Has the same meaning as “bankfull stage” defined in OAR 141-085-0010(2). The stage or elevation at which water overflows the natural banks of streams or other waters of this state and begins to inundate the upland. In the absence of physical evidence, the two-year recurrence interval flood elevation may be used to approximate the bankfull stage.

Visually Confirm or Visual Confirmation – to walk over and/or visually check an area to make a wetland determination and map wetlands and other waters.

Wetland – an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wetland Assessment or Functional Assessment – An evaluation and rating of the relative quality of a wetland by measuring its condition and its capacity to perform certain functions.

Wetland Boundary – A line marked on a map that identifies the approximate wetland/non-wetland boundary.

Wetland Condition – The integrity of a wetland’s physical and biological structure, which determines the wetland’s ability to perform specific functions, as well as its resilience and enhancement opportunities.

Wetland Delineation Manual or 1987 Manual – Provides technical guidelines and methods to determine whether an area is a wetland for purposes of Section 404 of the Federal Clean Water Act. The objective of the Act is to maintain and restore the chemical, physical, and biological integrity of the waters of the United States.

Wetland Determination – A decision that a site may, does, is unlikely to, or does not contain wetlands. A determination does not include the precise location or boundaries of any wetlands determined to be present.

Wetland Function – Characteristic action or behavior associated with a wetland that contributes to a larger ecological condition such as wildlife habitat, fish habitat, water quality, and/or flood control.

Wetland Hydrology – The total of all wetness characteristics in areas that are inundated or have saturated soils for a sufficient duration to support hydrophytic vegetation.

Wetland Indicator Status – Categories of plant species based upon the estimated probabilities (expressed as a frequency of occurrence) of a species occurring in a wetland or non-wetland. Wetland indicator status (WIS) includes the following:

- Obligate (OBL): species that almost always occur in wetlands under natural conditions (estimated probability >99%).
- Facultative wetland (FACW): species that usually occur in wetlands (estimated probability 67 to 99%), but are occasionally found in non-wetlands.
- Facultative (FAC): Species that are equally likely to occur in wetlands or non-wetlands (estimated probability 34 to 66%).
- Facultative upland (FACU): species that usually occur in non-wetlands (estimated probability 67 to 99%), but are occasionally found in wetlands.
- Upland (UPL): species that almost always occur in non-wetlands under normal conditions (estimated probability >99%).
- Not listed (NL): species that are not listed and are presumed to be upland species.
- No indicator status (NI): species that have not yet been evaluated.

A (+) or (-) following the WIS signifies a greater or lesser likelihood of being found in wetland condition.

Wetland Mosaic – A complex of several wetlands that are interspersed between areas of non-wetland each less than one half of an acre in size, making them difficult to map.

Wildlife Habitat – An area upon which wildlife depend in order to meet their requirements for food, water, shelter, and reproduction.

Appendix B. Wetland Characterization Sheets

Junction City Local Wetland Inventory

Watershed Summary Sheet



WATERSHED IDENTIFICATION

Flat Creek

CHARACTERISTIC

DESCRIPTION

Physical characteristics of the watershed	Flat Creek watershed covers the entire study area. Flat Creek is a perennial stream that also serves as an overflow channel of the Willamette River. It drains to the Long Tom River outside the UGB to the north. The watershed is nearly flat, sloping very gently from south to north. Some slight dissection of the overall landform occurs at the excavated canals and along the banks of Flat Creek. Within the study area there are three main canal branches, referred to here as the Eastern, Central, and Western Canals.
Land uses within the watershed	The dominant land use within the watershed is agricultural production. Residential, retail, institutional and light industrial uses are concentrated inside the Junction City UGB.
Water quality	While there are no state-listed "water-quality limited" streams in the watershed, there is evidence of degraded water quality caused by urban runoff, stormwater discharges, and herbicide use along the canals. The limited tree canopy cover near waterbodies results in high water temperatures and low dissolved oxygen levels in the summer. Nevertheless, half the wetlands in the study area were found to have intact water quality conditions.
Biological characteristics of the watershed	The widespread agricultural crop production in the watershed (and urbanized land within the city) leaves relatively few unmanaged or semi-natural areas with any biological diversity. There are some pockets of forested habitat – such as wetland CC-04 and areas to the east of the city - that provide diverse wildlife habitat and retain significant native plant components.

NARRATIVE SUMMARY OF WATERSHED DESCRIPTION

The Flat Creek watershed is an actively farmed landscape surrounding the Junction City urban area. These conditions limit available habitat for wildlife and degrade water quality conditions. Wetlands in the Junction City urban area provide valuable hydrologic control functions, and several also serve to protect water quality. Both habitat and water quality functions could be improved through establishment of greater vegetated buffers around the wetlands and transition to more integrated pest management practices (e.g., reduction in herbicide use and vegetation clearing in and adjacent to wetlands). Planting of native trees and shrubs along wetlands and streams combined with invasive species management, will improve wetland functions and conditions, and the overall health of the watershed.

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	BC (Bergstrom Canal)	Method:	Onsite
Wetland Size:	1.20 acres	Field Date:	3/11/09, 4/21/09
Cowardin Class:	PEMCx	Data Plot #s:	1, 2
HGM Class:	RFT	Investigators:	ACS, TB

LOCATION

Street/landmark: Bergstrom Park; north of River Road (E 1st Ave.), east of Dorsa St.
 Legal description: Lots 300, 400, 3400, 15s04w3244
 Sub-basin code: Bergstrom Canal

WETLAND CHARACTERISTICS

Description: The "Bergstrom Canal" flows down the eastern edge of Bergstrom Park. The park is located at the north end of Dorsa Street, at the eastern boundary of the study area. The park grounds are managed up to the edge of the canal. It is a soil-bottomed trapezoidal channel approximately 20 feet wide at the bottom. Much of the canal is unvegetated for a significant portion of the year due to routine spraying. Reed canarygrass and weedy grasses and forbs dominate the channel in most areas, with the latter dominating in areas that dry out quicker. Tree cover is limited.

Soils: Coberg silty clay loam, Conser silty clay loam, Malabon silty clay loam

Hydrologic Source: canal flow, direct precipitation, local runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		<i>Phalaris arundinacea</i> (reed canarygrass) <i>Alopecurus pratensis</i> (meadow foxtail)

Potential Enhancement Opportunities: Current functions are low. Conveyance and flood storage functions are maximized and vegetation is routinely sprayed. Opportunities include the following:

- elimination of noxious weeds
- where space exists, plant native trees and shrubs to moderate water temperature, add structural and food source diversity, and improve aquatic habitat
- treat stormwater prior to discharge
- avoid spraying areas of native vegetation

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	CC (Central Canal)	Method:	Onsite
Wetland Size:	3.82 acres	Field Date(s):	3/12, 4/21, 6/2/09
Cowardin Class:	PEMCx	Data Plot #s:	12, 13; 22, 23, 31, 38-40
HGM Class:	RFT	Investigators:	ACS, TB

LOCATION

Street/landmark: West of Hwy. 99S near Bryant Rd., north to 2nd Ave., west to Timothy St., then north near Spruce, Oak and Rose St. to 18th Ave.

Legal description: multiple lots within 16s04w0522, 15s04w3233, 15s04w3144, 15s04w3143, 15s04w3142, 15s04w3141, 15s04w3114, and 15s04w3111

Sub-basin code: Central Canal

WETLAND CHARACTERISTICS

Description: The “central canal” is a trapezoidal channel for much of its length. The canal flows northwest from Highway 99S near Bryant Road, through commercial, residential and institutional areas, until it leaves the northern study limits at 18th Street and Rose Ave. The substrate is generally soil with little gravel, and much of the canal is unvegetated for a significant portion of the year due to routine spraying. Vegetation is limited to pasture grasses and reed canarygrass in most areas. Occasional tree groves provide limited habitat and thermal cover; the most notable is an Oregon ash grove south of 10th Avenue along Rose Street.

Soils: Coberg silty clay loam, Conser silty clay loam

Hydrologic Source: canal flow, direct precipitation, local runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		<i>Phalaris arundinacea</i> (reed canarygrass) <i>Alopecurus pratensis</i> (meadow foxtail) <i>Polygonum amphibium</i> (water smartweed) <i>Alisma plantago-aquatica</i> (water plantain)

Potential Enhancement Opportunities: Current functions are low. Conveyance and flood storage functions are maximized and vegetation is routinely sprayed. Opportunities include:

- modify vegetation management approach to improve water quality/habitat functions
- eliminate noxious weeds and replace with native emergent species
- where space exists, plant native trees, shrubs to provide thermal cover, add structural diversity, and improve habitat
- treat stormwater prior to discharge

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	CC-01	Method:	Onsite
Wetland Size:	0.48 acre	Field Date(s):	3/12/2009
Cowardin Class:	PEMC/PFO1	Data Plot #s:	10, 11
HGM Class:	DO	Investigators:	ACS, TB

LOCATION

Street/landmark: Laurel Elementary School, Nyssa St. north of 12th Ave.
 Legal/tax map: Lots 5900, 6000, 15s04w3111
 Sub-basin code: Central Canal

WETLAND CHARACTERISTICS

Description: This is a flat-bottomed oblong feature that runs east-west along the southern edge of school property. The feature is fed by stormwater discharge and precipitation, and has a piped outlet to an arm of the Central Canal. It is lined by a row of mature Oregon ash that are rooted near the outer extent of the wetland boundary on the north side. The low areas are dominated by meadow foxtail, bluegrasses and bentgrasses. Subdominant components include reed canarygrass, curly dock, and common camas. No shrubs are present and Himalayan blackberry cover and that of other noxious species is low.

Soils: Malabon silty clay loam

Hydrologic Source: direct precipitation

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
<i>Fraxinus latifolia</i> (Oregon ash)		<i>Alopecurus pratensis</i> (meadow foxtail) <i>Agrostis sp.</i> (bentgrass) <i>Poa sp.</i> (bluegrass)

Potential Enhancement Opportunities: Enhancement opportunities would require school cooperation and some method of limiting access to wetlands (by people and pets).

Opportunities include the following:

- supplemental planting of native trees, shrubs, groundcover
- treatment of runoff prior to discharge to the swale if necessary
- preservation of headwater hydrology sources
- elimination of noxious weeds

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	CC-02	Method:	Offsite
Wetland Size:	0.73 acre	Field Date(s):	3/12/2009
Cowardin Class:	PABFx	Data Plot #s:	14, 15
HGM Class:	DCP	Investigators:	ACS, TB

LOCATION

Street/landmark: At the edge of a mobile home park east of Pitney Lane
 Legal description: Lot 900, 16s04w0600
 Sub-basin code: Central Canal

WETLAND CHARACTERISTICS

Description: This feature is an excavated depression. Black cottonwood and willow line the edge of the pond, particularly on the southwest side. Herbaceous vegetation includes reed canarygrass and meadow foxtail in roughly equal proportions, mostly at the margins. Approximately 30 percent of the feature is open water. No connection to other water bodies is apparent, although stream maps indicate that a Flat Creek tributary once passed adjacent to this feature.

Soils: Malabon silty clay loam

Hydrologic Source: stormwater, direct precipitation

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
<i>Populus balsamifera</i> (black cottonwood)	<i>Populus balsamifera</i> (black cottonwood) <i>Salix sp.</i> (willow)	<i>Alopecurus pratensis</i> (meadow foxtail) <i>Phalaris arundinacea</i> (reed canarygrass)

Potential Enhancement Opportunities: Current land use is stormwater-related. Minimal upland area for expansion of the feature is available due to adjacent residential uses.

Opportunities include the following:

- elimination of noxious weeds and replace with native emergent and/or aquatic vegetation
- supplemental planting of native trees, shrubs, groundcover
- treatment of stormwater runoff prior to discharge if necessary

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	CC-03	Method:	Offsite
Wetland Size:	0.52 acre	Field Date:	3/11/2009
Cowardin Class:	PUBFh	Data Plot #s:	8, 9
HGM Class:	RFT	Investigators:	ACS, TB

LOCATION

Street/landmark: 3rd Ave./Maple St., south of Seventh Day Adventist church
 Legal description: Lots 8000, 8201, 8202, 8300, 8600, 8700, 16s04w3233
 Sub-basin code: Central Canal

WETLAND CHARACTERISTICS

Description: This feature is a more natural reach of the central canal, with a distinct plant community and hydrology. Oregon ash and black cottonwood comprise an overstory along the edges, with willow species forming an understory shrub component. Reed canarygrass is the sole dominant in the herbaceous layer. This site likely remains ponded much or all of the year.

Adjacent uplands are vegetated with Oregon oak over an understory of meadow foxtail, tall fescue, reed canarygrass, and other weedy grasses and forbs.

Soils: Coberg/Conser silty clay loam

Hydrologic Source: canal flow, stormwater, direct precipitation

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
<i>Populus balsamifera</i> (black cottonwood) <i>Fraxinus latifolia</i> (Oregon ash)	<i>Salix sp.</i> (willow)	<i>Phalaris arundinacea</i> (reed canarygrass)

Potential Enhancement Opportunities: Current functions are lowered due to cover by noxious species and degraded water quality. Minimal upland area for expansion of the feature is available due to adjacent uses. Opportunities include the following:

- elimination of noxious weeds and replacement with native emergent/aquatic species
- supplemental planting of native trees, shrubs, groundcover
- improving stormwater treatment upstream

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	CC-04	Method:	Onsite
Wetland Size:	14.45 acres	Field Date(s):	3/25, 4/21, 6/2/2009
Cowardin Class:	PFO1/PEMC	Data Plot #s:	16-21; 26-30
HGM Class:	RFT/Flats	Investigators:	ACS, TB

LOCATION

Street/landmark: East of Highway 99S, south of 1st Ave., includes Weyerhaeuser/Hunton properties

Legal description: Lots 100, 200, 307, 309, 310, 600, 900, 16s04w0500 and Lot 100, 16s04w0522. Also includes Southern Pacific Railroad, P&W and 99S rights-of-way.

Sub-basin code: Central Canal

WETLAND CHARACTERISTICS

Description: This feature is a complex of large forested wetlands, sloughs and canals, and adjacent riparian wetlands. It is one of the largest wetland complexes inside the City's UGB, providing diverse wildlife habitat, intact water quality and hydrologic control functions. In the forest areas, black cottonwood and Oregon ash are dominant tree species. Shrubs are generally more drought-tolerant species such as common snowberry and poison oak. The herb layer is composed of reed canarygrass, poison hemlock, common camas, and pasture grasses.

Soils: Coberg and Conser silty clay loams

Hydrologic Source: stream flow, direct precipitation, runoff from adjacent vacant land

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
<i>Populus trichocarpa</i> (black cottonwood)	<i>Symphoricarpos albus</i> (common snowberry)	<i>Phalaris arundinacea</i> (reed canarygrass)
<i>Fraxinus latifolia</i> (Oregon ash)	<i>Oemleria cerasiformis</i> (Indian plum)	<i>Camassia quamash</i> (common camas)
	<i>Rhus diversiloba</i> (poison oak)	<i>Conium maculatum</i> (poison hemlock)

Potential Enhancement Opportunities: Current functions are high due to heavy tree and native species cover and interspersed habitat types. There is some cover by noxious species including Himalayan blackberry. Opportunities include the following:

- elimination of noxious weeds and replacement with native emergent vegetation
- replanting these areas (generally edges) with native trees, shrubs, groundcover
- treatment of runoff entering this area from adjacent developed areas

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	EC (Eastern canal)	Method:	Onsite
Wetland Size:	3.38 acres	Field Date(s)	3/12, 4/21, 6/2/2009
Cowardin Class:	PEMCx	Data Plot #s:	35,36, 41-43
HGM Class:	RFT	Investigators:	TB, ACS

LOCATION

Street/landmark: East of Hwy. 99 flowing north, crossing Hwy 99 0.1 mile south of the 99W/99E split

Legal description: multiple lots in 15s04w3213, 15s04w3221, 15s04w3224, 15s04w3220, 15s04w3224

Sub-basin code: Eastern Canal

WETLAND CHARACTERISTICS

Description: The "Eastern Canal" is a trapezoidal channel for much of its length. Substrate is variable; generally graveled or rocked in industrial/commercial areas, more earthy in residential areas. Much of the canal is unvegetated for a significant portion of the year due to routine spraying. Development abuts the top of bank along much of the canal and vegetation is limited to reed canarygrass and weedy grasses and forbs in most areas. Some occasional tree groves provide some habitat and thermal cover.

Soils: Coberg silty clay loam, Conser silty clay loam

Hydrologic Source: canal flow, direct precipitation, local runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		<i>Phalaris arundinacea</i> (reed canarygrass) <i>Alopecurus pratensis</i> (meadow foxtail) <i>Bidens cernuua</i> (nodding beggartick) <i>Alisma plantago-aquaticia</i> (water plantain)

Potential Enhancement Opportunities: Current functions are low. Conveyance and flood storage functions are maximized and vegetation is routinely sprayed. Opportunities include the following:

- elimination of noxious weeds and replanting with native emergent/herbaceous species
- where space exists, plant native trees, shrubs, protect water temperature, add structural and food source diversity, and improve aquatic habitat
- treat stormwater prior to discharge
- avoid spraying areas of native vegetation

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	EC-01	Method:	Onsite
Wetland Size:	1.95 acres	Field Date:	3/11/09
Cowardin Class:	PUB3G/PEMG	Data Plot #s:	4, 5
HGM Class:	RFT	Investigators:	ACS, TB

LOCATION

Street/landmark: Between W 14th Ave. and W 17th Ave., at Hwy 99 (Ivy Street)
 Legal description: Lots 900, 1000, 15s04w3222; Lots 700, 1800, 1900, 2000, 2100, 2200, 2800, 15s04w3221; Lot 4900, 15s04w3224
 Sub-basin code: Eastern Canal

WETLAND CHARACTERISTICS

Description: This feature is near the Highway 99 bridge near Ivy Street. Water appears to be several feet deep much or all of the year. Reed canarygrass is prevalent near the margins, particularly on the south and east sides. Aquatic vegetation is also present, such as water starwort. The north side borders residential backyards with a fringe of mature Douglas fir. Other adjacent uses are commercial, including a window business which stores inventory in and adjacent to the wetlands.

Soils: Conser silty clay loam

Hydrologic Source: canal flow, direct precipitation

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		<i>Phalaris arundinacea</i> (reed canarygrass) <i>Callitriche stellata</i> (water starwort)

Potential Enhancement Opportunities: Some functions are low due to adjacent residential, transportation, and commercial uses. Cover by noxious species is heavy in places. Opportunities include the following:

- elimination of noxious weeds and replacement with native emergent/aquatic species
- supplemental planting of native trees, shrubs
- treatment of stormwater runoff prior to discharge
- removal of windows and other materials stored in west end of wetland

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	EC-02	Method:	Offsite
Wetland Size:	0.87 acre (0.06 ac. in UGB)	Field Date:	3/11/09
Cowardin Class:	PEMC	Data Plot #s:	6, 7
HGM Class:	RFT	Investigators:	TB, ACS

LOCATION

Street/landmark: Across from 280 Deal St.
 Legal description: Lots 900, 1200, 15s04w3213
 Sub-basin code: Eastern Canal

WETLAND CHARACTERISTICS

Description: This wetland is on an undeveloped vacant site with a swale entering from the south and curving to the west. The local topography slopes gradually up to the north and east. Reed canarygrass is the sole dominant species. Mature Douglas fir are present about 100' to the northern swale edge. The majority of this wetland lies outside the UGB (0.06 acre of wetland extends south into the UGB).

Soils: Conser silty clay loam

Hydrologic Source: canal flow, direct precipitation, local runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		<i>Phalaris arundinacea</i> (reed canarygrass)

Potential Enhancement Opportunities: Functions at this site are degraded by low diversity across species and strata. Opportunities include the following:

- elimination of noxious weeds and replanting with native emergent, herbaceous species
- supplemental planting of native trees, shrubs
- treatment of stormwater runoff prior to discharge
- some possibility of expanding wetland areas or creating additional flood storage

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	FC-01	Method:	Offsite
Wetland Size:	213.76 acres	Field Date:	3/11/09
Cowardin Class:	PEMf	Data Plot #s:	DSL WD data
HGM Class:	Flats	Investigators:	ACS, TB

LOCATION

Street/landmark: North of High Pass Road, in area around treatment ponds

Legal description: Lots 701, 900, 1000, 15s05w36; lot 4203 15s04w31; lot 200 16s04w20; lot 1700 16s04w17

Sub-basin code: Flat Creek

WETLAND CHARACTERISTICS

Description: Large farmed wetland area in the western part of town bisected by Flat Creek. This unit has been the subject of several DSL-reviewed delineations (e.g., WD 06-0682, 04-0250, 98-0239), which form the basis for the current mapping. Based on review of these files and discussions with DSL, a large block of land bordering the treatment ponds (generally to the north) is assumed to be wetland. Other parts of the wetland boundary follow approved delineations.

The farmed wetland unit contains a mix of a grass seed, grain and vegetable crops.

Soils: Awbrig silty clay loam, Bashaw clay, Coberg silty clay loam, Conser silty clay loam, Malabon silty clay loam, Salem gravelly silt loam

Hydrologic Source: streamflow, direct precipitation, limited local runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		grass seed, grain and vegetable crops

Potential Enhancement Opportunities: Current farm use limits options within wetlands. Flat Creek and adjoining wetlands would benefit from buffering from the farm use and the establishment of a native tree/shrub component along the stream corridor.

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	FC-02	Method:	Offsite
Wetland Size:	19.85 acres	Field Date:	4/21/09
Cowardin Class:	PEMf/PFOC	Data Plot #:	44
HGM Class:	Flats	Investigators:	ACS, TB

LOCATION

Street/landmark: North and south of Milliron Rd., east of Hwy 99
 Legal description: Lot 1700 16s041700; Lot 200 16s04w2000
 Sub-basin code: Flat Creek

WETLAND CHARACTERISTICS

Description: This wetland comprises a complex of agricultural fields, industrial land, and the utility easement that runs parallel along the east side of Highway 99. These features are connected by culverts. The agricultural areas south of Milliron Road are dominated by grasses. A tributary to Flat Creek passes through the wetland from southeast to northwest. North of Milliron Road is a black cottonwood grove with rose, reed canarygrass and common camas. The utility corridor is dominated almost exclusively by reed canarygrass transitioning to meadow foxtail, tall fescue, and other pasture grasses as topography rises slowly to the north. Similar conditions exist in the utility corridor south of Milliron Road but the extent of wetland was unclear; this area was mapped as a Probable Wetland (PW). FC-02 includes DSL #WD 03-390 and remaining part of #WD 90-0137 (much of this delineated wetland has been filled). The area south of this wetland was approved for development; per DSL's guidance, a note was added to the LWI map.

Soils: Awbrig silty clay loam, Coberg silty clay loam, Conser silty clay loam

Hydrologic Source: direct precipitation, local runoff, roadway runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
<i>Populus balsamifera</i> (black cottonwood)	<i>Rosa sp.</i> (rose)	<i>Phalaris arundinacea</i> (reed canarygrass) <i>Rubus armeniacus</i> (Himalayan blackberry) <i>Festucua arundinacea</i> (tall fescue) <i>Camassia quamash</i> (common camas)

Potential Enhancement Opportunities: Current functions are variable due to adjacent transportation and agricultural uses. Water quality functions are high, while wildlife habitat values in the utility corridor and agricultural areas are low. Cover by noxious species is heavy in places. Opportunities include the following:

- elimination of noxious weeds and replanting with native emergent vegetation
- supplemental planting of vegetation where it won't interfere with utilities
- treatment of stormwater runoff prior to discharge

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	FC-03	Method:	Offsite
Wetland Size:	3.3 acres	Field Date:	4/21/09
Cowardin Class:	PEMCD; PUBx	Data Plot #:	DSL WD data
HGM Class:	RFT; Flats	Investigators:	TB, ACS

LOCATION

Street/landmark: East of Hwy 99, west of UPRR tracks
 Legal description: Lot 201, T16S, R4W, Section 17
 Sub-basin code: Flat Creek

WETLAND CHARACTERISTICS

Description: This feature comprises three wetlands that drain to Flat Creek and which are documented in Det. #WD 01-0343 and 90-0137. One lies in a farmed area just north of FC-02; one is a ditch that passes through an industrial area, and the last is a small remnant feature that lacks a connection to other wetlands or streams. The wetlands are dominated by grasses, primarily annual ryegrass. The northerly wetland has been ditched in the past to channelize flow and create drainage. This wetland is RFT; the other features are Flats.

Soils: Coberg silty clay loam, Conser silty clay loam, Malabon silty clay loam

Hydrologic Source: direct precipitation, local runoff, stream flow

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		<i>Lolium multiflorum</i> (annual ryegrass) <i>Juncus bufonius</i> (toad rush) <i>Poa annua</i> (annual bluegrass)

Potential Enhancement Opportunities: Current functions are low due to adjacent agricultural uses. Enhancement opportunities include the following:

- elimination of noxious weeds and replanting with native emergent vegetation
- supplemental planting of tree and shrub vegetation to add structure, limit heat gain
- supplemental planting of dense herbaceous vegetation in adjacent uplands to create a filter strip to intercept pollutants and eroded material carried by sheet flow

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	WC (western canal)	Method:	Offsite
Wetland Size:	1.36 acres	Field Date(s):	4/21/09
Cowardin Class:	PEMCx	Data Plot #s:	33, 34, 37
HGM Class:	RFT	Investigators:	TB, ACS

LOCATION

Street/landmark: East of Oaklea Dr., parallel to Oaklea to northern study area boundary
 Legal description: Lots 200, 500, 600, 700, 800, 15s04w3121
 Sub-basin code: Western Canal

WETLAND CHARACTERISTICS

Description: The western canal is a trapezoidal channel for much of its length, becoming softer and less angular near its headwater. Substrate varies from soil to ¾" gravel, and much of the canal is unvegetated for a significant portion of the year due to routine spraying. Residential development abuts the top of bank along much of the canal and vegetation is limited to pasture grasses and reed canarygrass in most areas.

Soils: Coberg silty clay loam, Conser silty clay loam

Hydrologic Source: canal flow, direct precipitation, local runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
		<i>Phalaris arundinacea</i> (reed canarygrass) <i>Alopecurus pratensis</i> (meadow foxtail) <i>Polygonum amphibium</i> (water smartweed) <i>Hypochaeris radicata</i> (spotted cat's ear)

Potential Enhancement Opportunities: Current functions are low. Conveyance and flood storage functions are maximized and vegetation is routinely sprayed.

Opportunities include the following:

- elimination of noxious weeds
- where space exists, plant native trees, shrubs, protect water temperature, add structural and food source diversity, and improve fish habitat
- treat stormwater prior to discharge
- cease spraying areas of native vegetation, if necessary

Junction City Local Wetland Inventory



Wetland Characterization Sheet

GENERAL INFORMATION

Wetland Code:	WC-01	Method:	Onsite
Wetland Size:	0.76 acre	Field Date(s):	4/21/09
Cowardin Class:	PEMC	Data Plot #s:	24, 25
HGM Class:	RFT	Investigators:	TB, ACS

LOCATION

Street/landmark: 94505 Oaklea Dr.
 Legal description: Lots 200, 500, 600, 700, 800, 15s04w3121
 Basin/sub-basin code: Western Canal

WETLAND CHARACTERISTICS

Description: This wetland lies in an area of low-density residential land used for hobby farms. Dominant vegetation comprises pasture grasses and weedy forbs with a fringe of hydrophytic trees. Wetland edges are affected by mowing, gardening, and ornamental plantings.

Soils: Coberg silty clay loam, Conser silty clay loam

Hydrologic Source: canal flow, direct precipitation, local runoff

Dominant Vegetation:

Trees	Shrubs	Vines/Herbs
<i>Populus balsamifera</i> (black cottonwood)		<i>Poa sp.</i> (bluegrass) <i>Pseudoroegneria repens</i> (quackgrass) <i>Trifolium repens</i> (white clover) <i>Festuca arundinacea</i> (tall fescue)

Potential Enhancement Opportunities: Current functions are moderate to low. Water quality functions are intact, but plant community is simple and affected by noxious species invasion. Opportunities include the following:

- elimination of noxious weeds and replanting with native emergent vegetation
- supplemental planting of native trees, shrubs, groundcover to protect water temperature, add structural and food source diversity, and improve fish habitat

Appendix C. Field Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/11/2009</u>
Applicant/Owner: <u>Bergstrom Park</u>	State: <u>OR</u>	Sampling Point: <u>1</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace above canal</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Bergstrom Canal, in Bergstrom Park.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Alopecurus pratensis</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Poa sp.</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>11</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. <u>Rubus armeniacus</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>10</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks: Sprayed				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/11/2009</u>
Applicant/Owner: <u>Bergstrom Park</u>	State: <u>OR</u>	Sampling Point: <u>2</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: <u>Bergstrom Canal, in Bergstrom Park</u>	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Alopecurus pratensis</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Poa sp.</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
60 = Total Cover				
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks: <u>Sprayed</u>				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 3/2	100					silt loam friable	
6-20"	10YR 3/1	100					silt loam very loose, friable, almost granular	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: --
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil criteria definition in Field Indicators of the US glossary:

Conser silty clay loam is poorly drained with a water table at a depth of 1.0 foot or less during the growing season with permeability less than 6.0 in/hour in any layer within a depth of 20 inches. Moreover, Conser silty clay loam is frequently ponded for long or very long duration during the growing season. Removal of fine debris indicates water reaches this elevation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 7"
 Saturation Present? Yes No Depth (inches): 4"
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken at OHWL (vegetation transition, small debris removed). Water surface is 1' foot from plot.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/11/2009</u>
Applicant/Owner: <u>Country Coach site</u>	State: <u>OR</u>	Sampling Point: <u>3</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Coberg/Conser silty clay loams</u>	Datum: _____	
Soil NWI Classification: <u>PEMC</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: <u>Wooded area between Country Coach and the western end of Elm Street.</u>	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Festuca arundinacea</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FAC-</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>75</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks: _____				

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 3/2						silt loam friable	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)					
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)					
Restrictive Layer (if present):								
Type: <u> </u>						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Depth (inches): <u> </u>								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Soil evenly moist throughout		

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/11/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>4</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bank</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>10%</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Between W 14 th Avenue and W 17 th Avenue, at Highway 99 (Ivy Street) EC-01	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks:				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 2.5/1						silt loam	minor small gravel, some glass

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: --
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Water table at 6 inches satisfies Hydric Soil Criterion 2B3 - water table at less than or equal to 1 foot from the surface during the growing season, if permeability is less than 6 inches per hour in any layer within 20 inches. Observation of surface inundation may also satisfy Criterion 3 as well.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 6 inches
 Saturation Present? Yes No Depth (inches): surface (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken 1 foot from edge of water

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/11/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>5</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>slope above canal</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>10%</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Between W 14 th Avenue and W 17 th Avenue, at Highway 99 (Ivy Street)	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: 15' r)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1. <u>Pseudotsuga menziesii</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>																	
2. <u>Salix babylonica</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>60</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: 15' r)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: 5' r)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Phalaris arundinacea</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. <u>Poa annua</u>	<u>I</u>	<input type="checkbox"/>	<u>FAC</u>																	
3. <u>Cardamine oligosperma</u>	<u>I</u>	<input type="checkbox"/>	<u>FAC</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>10</u> = Total Cover																				
Woody Vine Stratum (Plot size: 15' r)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>90</u>																				

Remarks: Managed landscape area. Douglas fir dominant elsewhere at same elevation.

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
0-20"	10YR 3/2						silt loam	friable, no redox	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)			<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)						
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)						
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)						
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)						
Restrictive Layer (if present):									
Type: <u> </u>									
Depth (inches): <u> </u>						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:									

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (2 or more required)				
<input type="checkbox"/> Surface Water (A1)			<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)			<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)			
<input type="checkbox"/> High Water Table (A2)			<input type="checkbox"/> Salt Crust (B11)			<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)			<input type="checkbox"/> Aquatic Invertebrates (B13)			<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Water Marks (B1)			<input type="checkbox"/> Hydrogen Sulfide Odor (C1)			<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Sediment Deposits (B2)			<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)			<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Drift Deposits (B3)			<input type="checkbox"/> Presence of Reduced Iron (C4)			<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Algal Mat or Crust (B4)			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)			<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Iron Deposits (B5)			<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)			<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)			
<input type="checkbox"/> Surface Soil Cracks (B6)			<input type="checkbox"/> Other (Explain in Remarks)			<input type="checkbox"/> Frost-Heave Hummocks (D7)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)									
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)									
Field Observations:									
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>					Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>									
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> (includes capillary fringe)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									
Plot taken about 2 feet above and 5 feet from Plot 4									

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>6</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>swale bottom</u>	Local relief (concave, convex, none) <u>concave</u>	Slope (%) <u>3%</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NW1 Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: OFFSITE - E of Deal Street, between E 10 th and 11 th Avenues. EC-O2	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot size: <u>15' r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' r</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>5' r</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input type="checkbox"/>	<u>FACW</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>15' r</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks:				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>7</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: OFFSITE - E of Deal Street, between E 10th and 11th Avenues. EC-02	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Festuca arundinacea</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FAC-</u>																	
3. <u>Alopecurus pratensis</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>100</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				
Remarks: Percent cover is approximate - vegetation is young																				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: <u>3rd/Kalmia</u>	State: <u>OR</u>	Sampling Point: <u>8</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NW1 Classification: <u>PUBFh</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: OFFSITE - plots taken near church, behind utility building on 3 rd Avenue. CC-03	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Populus balsamifera v. trichocarpa</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>85</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
1. <u>Salix sp.</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC-OBL</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>20</u> = Total Cover				
Herb Stratum (Plot size: 5' r)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>10</u>				

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: __
Depth (inches): ____

Hydric Soil Present? Yes No

Remarks:

OFFSITE - mapped hydric soil

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): ____
 Water Table Present? Yes No Depth (inches): ____
 Saturation Present? Yes No Depth (inches): ____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Ponded, likely drains slowly during growing season

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: <u>3rd/Maple</u>	State: <u>OR</u>	Sampling Point: <u>9</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: OFFSITE - CC-03	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. <u>Quercus garryana</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>NL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>70</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
	_____ = Total Cover			
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Festuca arundinacea</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Alopecurus pratensis</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Unidentified grass</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>	
5. <u>Misc small annuals</u>	<u>15</u>	<input type="checkbox"/>	<u>FAC</u>	
6. <u>Cardamine oligosperma</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks:				

SOIL

Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.					² Location: PL=Pore Lining, M=Matrix.				
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)			<input checked="" type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)						
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)						
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)						
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)						
Restrictive Layer (if present):									
Type: <u> </u>									
Depth (inches): <u> </u>						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Remarks: OFFSITE - Mapped hydric soil									

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (2 or more required)				
<input type="checkbox"/> Surface Water (A1)			<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)			<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)			
<input type="checkbox"/> High Water Table (A2)			<input type="checkbox"/> Salt Crust (B11)			<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)			<input type="checkbox"/> Aquatic Invertebrates (B13)			<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Water Marks (B1)			<input type="checkbox"/> Hydrogen Sulfide Odor (C1)			<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Sediment Deposits (B2)			<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)			<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Drift Deposits (B3)			<input type="checkbox"/> Presence of Reduced Iron (C4)			<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Algal Mat or Crust (B4)			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)			<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Iron Deposits (B5)			<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)			<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)			
<input type="checkbox"/> Surface Soil Cracks (B6)			<input type="checkbox"/> Other (Explain in Remarks)			<input type="checkbox"/> Frost-Heave Hummocks (D7)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)									
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)									
Field Observations:									
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>					Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u>									
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u>									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks: Plot about 4 feet above OHWL, about 5' away. High water table and/or saturation unlikely based on topographic position.									

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: <u>Laurel Elementary School</u>	State: <u>OR</u>	Sampling Point: <u>10</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Laurel Elementary School grounds CC-01	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus latifolia</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>60</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
	_____ = Total Cover			
Herb Stratum (Plot size: 5' r)				
1. <u>Poa sp.</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Agrostis sp.</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Alopecurus pratensis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
4. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Rumex crispus</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC+</u>	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u> = Total Cover			
Woody Vine Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum: <u>10</u>				
Remarks:				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	10YR 3/2	100					si cl lo	
8-20"	10YR 3/2	77	7.5YR 4/6	15	C	M	si cl lo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches): 20
Saturation Present? Yes No Depth (inches): 12
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot just inside wetland boundary.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: <u>Laurel Elementary School</u>	State: <u>OR</u>	Sampling Point: <u>11</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Laurel Elementary School grounds CC-01	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus latifolia</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>70</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: 5' r)				
1. <u>Poa sp.</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Unidentified grass</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Alopecurus pratensis</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Allium sp.</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>85</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>100 - open water</u>				

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14"	10YR 3/2	100					si cl lo	
14-20"	10YR 3/2	77	7.5YR 4/6	20	C	M	si cl lo	
			7.5YR 5/6	3	C	M	si cl lo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Barely moist at 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>12</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Malabon-Urban Land complex</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE - south end of Rose Street, south of 10 th Avenue Part of CC	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. <u>Fraxinus latifolia</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>70</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
Herb Stratum (Plot size: <u>5' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum: <u>100 - open water</u>				

Remarks:
 Plot taken at base of ash tree at the OHWL, based on debris lines, lines on rocks downstream, vegetation transition in herb layer. Below OHWL, this feature is unvegetated at this location.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - presume soil exhibits hydric soil indicators in the top 12 inches based on position below OHWL.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): earlier in season
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Some ash trees rooted at or below OHWL of canal flowing through ash grove. Canal and lower bank below OHWL are minimally vegetated.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>13</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Malabon-Urban Land complex</u>	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: OFFSITE - south end of Rose Street, south of 10th Avenue Part of CC	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. <u>Fraxinus latifolia</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>70</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
	<u>25</u> = Total Cover			
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Phalaris arundinacea</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Montia sibirica</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Galium aparine</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. <u>Rubus armeniacus</u>	<u>I</u>	<input type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
	<u>I</u> = Total Cover			
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks:				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - Ground surface obscured, but soil not mapped hydric and geomorphic position suggests this plot is above the influence of water in the CC.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken above OHWL - no evidence of saturation, ponding, or flow. Likely not saturated in top 12" during growing season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>14</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>pond edge</u>	Local relief (concave, convex, none) <u>concave</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NW1 Classification: <u>PABFx</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: OFFSITE - Pitney Lane mobile home park CC-02	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus balsamifera v. trichocarpa</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>50</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)				
1. <u>Salix sp.</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC-OBL</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. <u>Populus balsamifera v. trichocarpa</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>25</u> = Total Cover				
Herb Stratum (Plot size: 5' r)				
1. <u>Phalaris arundinacea</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Alopecurus pratensis</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>70</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)				
1. <u>Rubus armeniacus</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>30</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>30 - open water</u>				

Remarks:
Community on west edge of pond.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - Ground surface obscured, no soils sampled. Hydric soil assumed based on NWI mapping, observation of extent of inundation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken at edge of pond, several inches below OHWL. Hydrology source is stormwater. Cannot determine whether this feature is hydrologically isolated from stream/canal system, but no other wetlands, streams or water features appear connected in aerial photography.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/12/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>15</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace above pond</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NWI Classification: <u>PABFx</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: OFFSITE - Pitney Lane mobile home park CC-02	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u> = Total Cover																			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals <u>100</u></td> <td><u>400</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species _____	x 5 = _____	Column Totals <u>100</u>	<u>400</u>	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species <u>100</u>	x 4 = <u>400</u>																			
UPL species _____	x 5 = _____																			
Column Totals <u>100</u>	<u>400</u>																			
Prevalence Index = B/A = <u>4.00</u>																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u> = Total Cover																			
Herb Stratum (Plot size: <u>5' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
	_____ = Total Cover																			
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. <u>Rubus armeniacus</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
	<u>100</u> = Total Cover																			
% Bare Ground in Herb Stratum: <u>0</u>																				
Remarks: Community on west edge of pond.																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - Ground surface obscured, no soils sampled. Geomorphic position suggests soils not influenced by nearby standing water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken 3 feet from above open water - unlikely to stay saturated.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/25/2009</u>
Applicant/Owner: <u>Weyerhaeuser</u>	State: <u>OR</u>	Sampling Point: <u>16</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	Datum: _____	
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Part of CC-04 complex	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus latifolia</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>90</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Oemleria cerasiformis</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. <u>Rhus diversiloba</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Symphoricarpos albus</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. <u>Crataegus douglasii</u>	<u>I</u>	<input type="checkbox"/>	<u>FAC</u>	
5. _____	_____	<input type="checkbox"/>	_____	
<u>45</u> = Total Cover				
Herb Stratum (Plot size: 5' r)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Camassia quamash</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Ranunculus repens</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>120</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus armeniacus</u>	<u>I</u>	<input type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>I</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>10</u>				

Remarks:
Plot taken in narrow riparian fringe between open water and drier tree/shrub community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5"	10YR 3/1+	100					silt loam	
5-8	10YR 3/1+	98	7.5YR 5/6	2	C	M	silt loam	
8-20"	10YR 3/1+	80	7.5YR 5/6	20	C	M	sil cl lo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Texture becomes finer with increasing depth.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches): 14"
Saturation Present? Yes No Depth (inches): 8"
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken 3 feet from edge of open water. Water flows very slowly to north.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/25/2009</u>
Applicant/Owner: <u>Weyerhaeuser</u>	State: <u>OR</u>	Sampling Point: <u>17</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>depression</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	Datum: _____	
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Western edge of wetland is railroad embankment fill and/or hardened bank. Part of CC-04 complex.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus garryana</u>	90	<input checked="" type="checkbox"/>	<u>NL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
90 = Total Cover																				
Sapling/Shrub Stratum (Plot size: 15' r)																				
1. <u>Oemleria cerasiformis</u>	15	<input checked="" type="checkbox"/>	<u>FACU</u>	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align:center;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>155</u></td> <td>x 4 = <u>620</u></td> </tr> <tr> <td>UPL species <u>90</u></td> <td>x 5 = <u>450</u></td> </tr> <tr> <td>Column Totals <u>250</u></td> <td><u>1085</u></td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4.34</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>155</u>	x 4 = <u>620</u>	UPL species <u>90</u>	x 5 = <u>450</u>	Column Totals <u>250</u>	<u>1085</u>	Prevalence Index = B/A = <u>4.34</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>155</u>	x 4 = <u>620</u>																			
UPL species <u>90</u>	x 5 = <u>450</u>																			
Column Totals <u>250</u>	<u>1085</u>																			
Prevalence Index = B/A = <u>4.34</u>																				
2. <u>Rhus diversiloba</u>	25	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. <u>Amelanchier alnifolia</u>	20	<input checked="" type="checkbox"/>	<u>FACU</u>																	
4. <u>Crataegus douglasii</u>	5	<input type="checkbox"/>	<u>FAC</u>																	
5. <u>Symphoricarpos albus</u>	5	<input type="checkbox"/>	<u>FACU</u>																	
70 = Total Cover																				
Herb Stratum (Plot size: 5' r)																				
1. <u>Dactylus glomerata</u>	60	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Camassia quamash</u>	10	<input type="checkbox"/>	<u>FACU</u>																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
70 = Total Cover																				
Woody Vine Stratum (Plot size: 15' r)																				
1. <u>Rubus armeniacus</u>	25	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
25 = Total Cover																				
% Bare Ground in Herb Stratum: <u>30</u>																				

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/2	100					silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Root refusal at 16 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil is moist only at 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/25/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>18</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>depression</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser / Salem</u>	NWI Classification: <u>Mapped, no class given</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Part of CC-04 wetland complex	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	<input type="checkbox"/>	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
1. <u>Populus balsamifera v. trichocarpa</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>90</u> = Total Cover				
Herb Stratum (Plot size: 5' r)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Conium maculatum</u>	<u>I</u>	<input type="checkbox"/>	<u>FAC+</u>	
3. <u>Galium aparine</u>	<u>I</u>	<input type="checkbox"/>	<u>FACU</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>Rubus armeniacus</u>	<u>I</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. _____	_____	<input type="checkbox"/>	_____	
<u>I</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>10</u>				

Remarks:
Cottonwood trees present elsewhere in community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 3/2	90	10YR 3/1	5	D	M	silt loam	
			7.5YR 3/4	5	C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: --
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Hydric soil criteria definition in Field Indicators of the US glossary:

Conser silty clay loam is poorly drained with a water table at a depth of 1.0 foot or less during the growing season with permeability less than 6.0 in/hour in any layer within a depth of 20 inches. Moreover, Conser silty clay loam is frequently ponded for long or very long duration during the growing season. Observation of water table at the surface corroborates this finding.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): surface
 Water Table Present? Yes No Depth (inches): surface
 Saturation Present? Yes No Depth (inches): surface
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/25/2009</u>
Applicant/Owner: <u>Weyerhaeuser</u>	State: <u>OR</u>	Sampling Point: <u>19</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Part of the CC-04 wetland complex	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>55</u></td> <td>x 4 = <u>220</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals <u>85</u></td> <td><u>295</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.47</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>55</u>	x 4 = <u>220</u>	UPL species _____	x 5 = _____	Column Totals <u>85</u>	<u>295</u>	Prevalence Index = B/A = <u>3.47</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>55</u>	x 4 = <u>220</u>																			
UPL species _____	x 5 = _____																			
Column Totals <u>85</u>	<u>295</u>																			
Prevalence Index = B/A = <u>3.47</u>																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Taraxacum officinale</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Hypochaeris radicata</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. <u>Conium maculatum</u>	<u>15</u>	<input type="checkbox"/>	<u>FAC+</u>																	
4. <u>Phalaris arundinacea</u>	<u>15</u>	<input type="checkbox"/>	<u>FACW</u>																	
5. <u>Poa annua</u>	<u>I</u>	<input type="checkbox"/>	<u>FAC</u>																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>85</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. <u>Rubus armeniacus</u>	<u>I</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
<u>I</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>20</u>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10"	10YR 3/2	95	7.5YR 5/4	5	C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Rock refusal at 10" - fill material. Hydric soil likely relict based on landscape position. Plot taken at the Conser silty clay loam/Salem gravelly silt loam map unit interface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/25/2009</u>
Applicant/Owner: <u>Weyerhaeuser @ Possum Flats</u>	State: <u>OR</u>	Sampling Point: <u>20</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE -- Hydrologically connected to Plots 16-19. Part of the CC-04 wetland complex. Plot viewed from Possum Flat Road.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>15' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus latifolia</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>90</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Conium maculatum</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC+</u>																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>35</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. <u>Rubus armeniacus</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>15</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>65</u>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - no soils sampled but the site is inundated.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): 1 to 10"
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>3/25/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>21</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE -- Hydrologically connected to Plots 16-19. West of Weyerhaeuser. Part of CC-04 complex	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus latifolia</u>	80	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. <u>Populus balsamifera v. trichocarpa</u>	30	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>110</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: 5' r)				
1. <u>Phalaris arundinacea</u>	90	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Conium maculatum</u>	2	<input type="checkbox"/>	<u>FAC+</u>	
3. <u>Dipsacus fullonum</u>	I	<input type="checkbox"/>	<u>FAC+</u>	
4. <u>Rumex crispus</u>	I	<input type="checkbox"/>	<u>FAC+</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>92</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)				
1. <u>Rubus armeniacus</u>	15	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>15</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>10</u>				

Remarks: Epilobium ciliatum emerging in ponded areas.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - no soil sampling. However, based on geomorphic position and presence of standing water, we assume soils have developed hydric soil indicators in the upper part.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): 1 to 12"
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Based on landform and relation to open water features, unponded areas likely saturated in top 12 inches for extended periods.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>LDS church</u>	State: <u>OR</u>	Sampling Point: <u>22</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Trapezoidal swale typical of those elsewhere in study area. Veg cover varies from total to minimal. Part of CC.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes																
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Glyceria sp.</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phalaris arundinacea</u>	<u>15</u>	<input type="checkbox"/>	<u>FACW</u>																	
3. <u>Callitriche stellata</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>90</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>10</u>																				

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7"	10YR 4/2	80	10YR 4/6	20	C	M	silt loam	
7-20"	10YR 4/2	40	10YR 4/6	60	C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): 0
 Water Table Present? Yes No Depth (inches): 3
 Saturation Present? Yes No Depth (inches): surface
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology driven by canal. Soil is drier in the bottom of the pit despite saturation in upper horizons. Plot taken at edge of standing water.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>LDS church</u>	State: <u>OR</u>	Sampling Point: <u>23</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal slope</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Plot taken on slope above canal. Part of CC.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. <u>Pinus sp.</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>40</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>100</u></td> <td>x 3 = <u>300</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals <u>140</u></td> <td><u>460</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.29</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>100</u>	x 3 = <u>300</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species _____	x 5 = _____	Column Totals <u>140</u>	<u>460</u>	Prevalence Index = B/A = <u>3.29</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>100</u>	x 3 = <u>300</u>																			
FACU species <u>40</u>	x 4 = <u>160</u>																			
UPL species _____	x 5 = _____																			
Column Totals <u>140</u>	<u>460</u>																			
Prevalence Index = B/A = <u>3.29</u>																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Lawn grasses (Poa, agrostis)</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Pseudoroegneria repens</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC-</u>																	
3. <u>Taraxacum officinale</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>100</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				
Remarks:																				

Hydrophytic Vegetation Present? Yes No

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 4/3	100					silt loam friable	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot on slope above swale, about 18 inches above and 5 feet over from Plot 22.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>94505 Oaklea</u>	State: <u>OR</u>	Sampling Point: <u>24</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Bashaw clay</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Map unit WC-01	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Poa sp.</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Pseudoroegneria repens</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC-</u>	
3. <u>Trifolium repens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
4. <u>Festuca sp.</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC-</u>	
5. <u>Plantago lanceolata</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU+</u>	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks:				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 3/1	100					si cl lo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Saturation and water table are likely higher earlier in the year, which would satisfy hydric soil Criteria 2B3 - "water table at less than or equal to 1 foot from the surface during the growing season, if permeability is less than 6 inches per hour in any layer within 20 inches".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches): 20"
Saturation Present? Yes No Depth (inches): 13"
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation and water table are likely higher earlier in the year.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>94505 Oaklea</u>	State: <u>OR</u>	Sampling Point: <u>25</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Bashaw clay</u>	NW1 Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: <u>WC-01</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus balsamifera v. trichocarpa</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>20</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>70</u> x 3 = <u>210</u> FACU species <u>55</u> x 4 = <u>220</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals <u>125</u> <u>430</u> Prevalence Index = B/A = <u>3.44</u>
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: 5' r)				
1. <u>Taraxacum officinale</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Hypochaeris radicata</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Trifolium repens</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
4. <u>Festuca sp.</u>	<u>15</u>	<input type="checkbox"/>	<u>FAC</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>105</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks:				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 3/1	100					si cl lo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches): 16"
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is present in the soil pit, but based upon the date of the investigation, it likely does not extend above 12 inches for an extended period during the growing season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>Weyerhaeuser</u>	State: <u>OR</u>	Sampling Point: <u>26</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Part of CC-04. Plot taken upstream of the confluence of two small tributaries, on the eastern bank of the western tributary.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus latifolia</u>	90	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>43%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
90 = Total Cover																				
Sapling/Shrub Stratum (Plot size: 15' r)																				
1. <u>Oemleria cerasiformis</u>	15	<input checked="" type="checkbox"/>	<u>FACU</u>	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td style="text-align:right;">x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>150</u></td> <td style="text-align:right;">x 2 = <u>300</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td style="text-align:right;">x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td style="text-align:right;">x 4 = <u>180</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td style="text-align:right;">x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>215</u></td> <td style="text-align:right;"><u>540</u></td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.51</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>150</u>	x 2 = <u>300</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>45</u>	x 4 = <u>180</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>215</u>	<u>540</u>	Prevalence Index = B/A = <u>2.51</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>150</u>	x 2 = <u>300</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>45</u>	x 4 = <u>180</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>215</u>	<u>540</u>																			
Prevalence Index = B/A = <u>2.51</u>																				
2. <u>Crataegus monogyna</u>	20	<input checked="" type="checkbox"/>	<u>FAC</u>																	
3. <u>Symphoricarpos albus</u>	30	<input checked="" type="checkbox"/>	<u>FACU</u>																	
4. <u>Fraxinus latifolia</u>	10	<input type="checkbox"/>	<u>FACW</u>																	
5. _____	_____	<input type="checkbox"/>	_____																	
75 = Total Cover																				
Herb Stratum (Plot size: 5' r)																				
1. <u>Camassia quamash</u>	50	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Tellima grandiflora</u>	1	<input type="checkbox"/>	<u>FACU</u>																	
3. <u>Galium aparine</u>	1	<input type="checkbox"/>	<u>FACU</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
50 = Total Cover																				
Woody Vine Stratum (Plot size: 15' r)																				
1. <u>Hedera helix</u>	30	<input checked="" type="checkbox"/>	<u>NL</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. <u>Rubus ursinus</u>	25	<input checked="" type="checkbox"/>	<u>FACU</u>																	
55 = Total Cover																				
% Bare Ground in Herb Stratum: <u>50</u>																				

Remarks:
 Also in community: Rubus armeniacus, Prunus avium, Rhus diversiloba, Conium maculatum.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 3/2	100					silt loam friable	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Moist only at 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>Weyerhaeuser</u>	State: <u>OR</u>	Sampling Point: <u>27</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Part of CC-04. Plot taken upstream of the confluence of two small tributaries, on the eastern bank of the western tributary.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. <u>Fraxinus latifolia</u>	<u>85</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	<u>85</u> = Total Cover																			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u> = Total Cover																			
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
	<u>90</u> = Total Cover																			
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u> = Total Cover																			
% Bare Ground in Herb Stratum: <u>10</u>																				

Remarks:
Community in bottom of swale. Rosa pisocarpa also in community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 3/1	100					si cl lo	
4-20"	10YR 3/1	90	7.5YR 5/6	10	C	M	si cl lo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): earlier in year
 Water Table Present? Yes No Depth (inches): 8"
 Saturation Present? Yes No Depth (inches): 3"
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>Weyerhaeuser</u>	State: <u>OR</u>	Sampling Point: <u>28</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Plot taken in low spot between Weyerhaeuser's northern site and tracks to the east. Most of this area is wooded; this plot was taken in a gap between groves. Part of CC-04.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
_____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>115</u></td> <td>x 2 = <u>230</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals <u>125</u></td> <td><u>270</u></td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.16</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>115</u>	x 2 = <u>230</u>	FAC species _____	x 3 = _____	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species _____	x 5 = _____	Column Totals <u>125</u>	<u>270</u>	Prevalence Index = B/A = <u>2.16</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>115</u>	x 2 = <u>230</u>																			
FAC species _____	x 3 = _____																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species _____	x 5 = _____																			
Column Totals <u>125</u>	<u>270</u>																			
Prevalence Index = B/A = <u>2.16</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. <u>Fraxinus latifolia</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>15</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>100</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. <u>Rubus armeniacus</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
2. <u>Rubus ursinus</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
<u>10</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				

Hydrophytic Vegetation Present? Yes No

Remarks: Mature ash trees, black cottonwood also present in community. Higher areas dominated by Himalayan blackberry, meadow foxtail in addition.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 2/2	100					si cl lo	friable
4-20"	10YR 2/2	80	10YR 3/2	20	C	M	si cl lo	friable, clayier with depth redox are common, med, faint

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Weak redox activity. Redox fades in and out below 4". Difficult to discern.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No evidence of standing water or indirect hydrology indicators.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: <u>Weyerhaeuser</u>	State: <u>OR</u>	Sampling Point: <u>29</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Part of CC-04. Plot taken on the easterly tributary on the western side.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Alopecurus pratensis</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Agrostis sp.</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Carex sp.</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC-OBL</u>	
4. <u>Juncus patens</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Taraxacum officinale</u>	<u>I</u>	<input type="checkbox"/>	<u>FACU</u>	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks:				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals _____
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20"	10YR 2/2	95	10YR3/2	5	C	M	sandy loam	Redox common, med, very faint

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: __
Depth (inches): ____

Hydric Soil Present? Yes No

Remarks:

Redox is present but faint. Dark parent material may be obscuring redox activity somewhat.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): ____
 Water Table Present? Yes No Depth (inches): 11"
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 4"

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>30</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Part of CC-04. Plot taken on the easterly tributary on the western side.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u> = Total Cover																			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>65</u></td> <td>x 3 = <u>195</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals <u>105</u></td> <td><u>365</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.48</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>65</u>	x 3 = <u>195</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals <u>105</u>	<u>365</u>	Prevalence Index = B/A = <u>3.48</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>65</u>	x 3 = <u>195</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>10</u>	x 5 = <u>50</u>																			
Column Totals <u>105</u>	<u>365</u>																			
Prevalence Index = B/A = <u>3.48</u>																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u> = Total Cover																			
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Festuca arundinacea</u>	<u>65</u>	<input checked="" type="checkbox"/>	<u>FAC-</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Plantago lanceolata</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU+</u>																	
3. <u>Vicia sativa</u>	<u>5</u>	<input type="checkbox"/>	<u>NL</u>																	
4. <u>Geranium molle</u>	<u>5</u>	<input type="checkbox"/>	<u>NL</u>																	
5. <u>Taraxacum officinale</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
	<u>100</u> = Total Cover																			
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. <u>Rubus armeniacus</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
	<u>5</u> = Total Cover																			
% Bare Ground in Herb Stratum: <u>0</u>																				

Remarks:
Terrace below firepond. About 2 feet higher than Plot 29.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	10YR 3/2	100					silt loam	Fill material: rocky, no redox
8-20"	10YR 3/2	98	10YR 3/2+	<2%	C	M	silt loam	redox is few, med, nearly indiscernable

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Redox is not sufficient to meet hydric soil indicator criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Moist only through 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>31</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Coburg - Urban Land complex</u>	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: OFFSITE -- CC canal plot between CC-03 and CC-04. Viewed where canal crosses under 1 st Avenue just west of Ivy Street.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes																
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
_____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. <u>Rosa sp.</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>30</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>100</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				

Remarks:
Canal bottom community.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - no soil sampling. Surface obscured by heavy Phalaris cover. Presumed hydric based on landform and presence of indicators of hydrology earlier in the year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Evidence of standing water earlier in the year - sediment crusts on leaves.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>32</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Coberg silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE -- limited visibility into site; cover estimated. Noted as Probable Wetland (PW). Viewed from Highway 99 near Prairie Road intersection.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. <u>Populus balsamifera v. trichocarpa</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. <u>Salix sp.</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
	<u>60</u> = Total Cover			
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Phalaris arundinacea</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Dipsacus fullonum</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC+</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum: <u>80</u>				

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								surface color

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Offsite - mapped as having hydric inclusions. Presumed hydric based on hydrophytic vegetation and aerial photography showing inundation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Shown as ponded on aerial photographs.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>4/21/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>33</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input checked="" type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: OFFSITE -- 10th Street, west of 1836. Part of WC. Trapezoidal ditch: natural drainage reshaped during development. Receives stormwater runoff and runoff from Plot 34 during high flow.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
Q = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
1. <u>Salix sp. (planted)</u>	<u>I</u>	<input type="checkbox"/>	<u>OBL</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
I = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Poa annua</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
20 = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
Q = Total Cover																				
% Bare Ground in Herb Stratum: <u>80</u>																				
Remarks: Vegetation sprayed.																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								surface color

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: --
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - mapped hydric

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry today, dry on previous site visit. Would receive runoff from south of 10th Street during high flow and designed to increase stormwater storage function.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>34</u>
Investigator(s): <u>TB/ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE -- 10 th St @ Oaklea. Plot taken above Plot 33. Part of WC.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
_____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. <u>Salix sp. (planted)</u>	<u>I</u>	<input type="checkbox"/>	<u>FAC-OBL</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>I</u> = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>100</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								surface color

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - mapped hydric, and observed standing water indicate that soils likely exhibit hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): 2" (prior visit)
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Observed standing or slowly flowing water at previous visit. Dry today.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>35</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE -- Magnolia St. canal. Viewed from Magnolia Street crossing. Part of EC.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes																
Tree Stratum (Plot size: 15' r)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: 15' r)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: 5' r)																				
1. <u>Alisma plantago-aquatica</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Veronica sp.</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
3. <u>Alopecurus geniculatus</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>																	
4. <u>Bidens cernua</u>	<u>I</u>	<input type="checkbox"/>	<u>FACW+</u>																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>55</u> = Total Cover																				
Woody Vine Stratum (Plot size: 15' r)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>45</u>																				

Remarks:
 Canal bottom community. Actual cover in this reach is about 40%, with bare ground varying from 20 to 50 percent depending on location.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0	10YR 2/1-3/1							surface color

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Offsite - Observation of inundation between 3 and 10 inches deep satisfies Hydric Soil Criterion 3, and possibly 2B3 as well.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): 3", max 10"
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: <u>Magnolia Street ROW</u>	State: <u>OR</u>	Sampling Point: <u>36</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>terrace above canal</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: <u>44.13722 N</u>	Long: <u>123.12505 W</u> Datum: _____
Soil Map Unit Name: <u>Malabon silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: OFFSITE. Viewed from Magnolia Street Crossing. Part of EC.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>100</u></td> <td><u>380</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.8</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>60</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>100</u>	<u>380</u>	Prevalence Index = B/A = <u>3.8</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>10</u>	x 2 = <u>60</u>																			
FAC species <u>40</u>	x 3 = <u>120</u>																			
FACU species <u>50</u>	x 4 = <u>200</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>100</u>	<u>380</u>																			
Prevalence Index = B/A = <u>3.8</u>																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Dactylus glomerata</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Agrostis alba</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
3. <u>Hypochaeris radicata</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
4. <u>Alopecurus pratensis</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>																	
5. <u>Festuca arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC-</u>																	
6. <u>Trifolium pratense</u>	<u>I</u>	<input type="checkbox"/>	<u>FACU</u>																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. <u>Misc other grasses</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>100</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				
Remarks:																				

Hydrophytic Vegetation Present? Yes No

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Top of canal - no exposed soil but vegetation and geomorphic position do not suggest soil is hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken about 8 feet above bottom of canal. Unlikely to receive much overland flow or water table support.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>37</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____ Long: _____	Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>PFOC</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE --13th Street west of Unity Street. Part of WC.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Callitriche stellata</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Agrostis stolonifera</u>	<u>15</u>	<input type="checkbox"/>	<u>FAC</u>																	
3. <u>Polygonum amphibium</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>90</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>10</u>																				

Remarks:
 Canal bottom community. Actual cover in this reach is about 50%, with bare ground varying from 10 to 90 percent depending on location. Uplands are landscaped down to the OHWL.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
---	---	---

<p>Restrictive Layer (if present):</p> <p>Type: <u> </u></p> <p>Depth (inches): <u> </u></p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
---	--

Remarks:
OFFSITE - mapped hydric, vegetation is strongly hydrophytic and evidence of surface water suggests soil has developed hydric indicators.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2)</p> <p><input checked="" type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>		<p>Secondary Indicators (2 or more required)</p> <p><input checked="" type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</p> <p><input checked="" type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p> <p><input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)</p> <p><input type="checkbox"/> Frost-Heave Hummocks (D7)</p>
--	--	--	---

<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u></p> <p>Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u></p> <p>Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u> (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
---	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Evidence of standing water earlier in the year - sediment crusts on leaves.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>38</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Coburg silty clay loam</u>	Datum: _____	
Soil Map Unit Name: <u>Coburg silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE --Oak St north of 10 th Street. Part of CC.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes																
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Callitriche stellata</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Glyceria elata</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
3. <u>Alopecurus geniculatus</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>80</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>20</u>																				

Remarks:
 Canal bottom community. Actual cover in this reach is about 50%, with bare ground varying from 10 to 90 percent depending on location. Uplands are landscaped down to the OHWL.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - not mapped hydric, but vegetation is strongly water-dependent and evidence of standing water was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Evidence of standing water earlier in the year - sediment crusts on leaves.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: <u>Park - CC between CC-01 and CC-02</u>	State: <u>OR</u>	Sampling Point: <u>39</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: <u>44.12974 N</u>	Long: <u>123.12918 W</u>
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	Datum: _____
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Southwest corner of park at Timothy Street.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Callitriche stellata</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Polygonum sp.</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
3. <u>Alopecurus geniculatus</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
4. <u>Epilobium ciliatum</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
55 = Total Cover				
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum: <u>45</u>				

Remarks: Cover in the bottom of the canal varies from 5 to 70% in this reach. Vegetation tends to be patchy in character. Alisma plantago-aquatica (OBL) also patchily dominant in this reach.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 3/1	100	--				si cl lo	no redox in surface horizon
4-6"	10YR 3/1	98	10YR 3/2	2	C	M	si cl lo	few medium faint redox
6-20"	10YR 3/1	95	10YR 4/3	5	C	M	si cl lo	common medium to coarse redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: --
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches): 4"
Saturation Present? Yes No Depth (inches): surface
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken 1' from edge of standing water, and 1' below the elevation of heavy cover of FAC and FACU grasses (OHWL).

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: <u>Park - CC between CC-01 and CC-02</u>	State: <u>OR</u>	Sampling Point: <u>40</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal sideslope</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: <u>44.12974 N</u>	Long: <u>123.12918 W</u> Datum: _____
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Southwest corner of park at Timothy Street.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>50</u></td> <td>x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>40</u></td> <td>x 5 = <u>200</u></td> </tr> <tr> <td>Column Totals <u>105</u></td> <td><u>410</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.9</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = _____	FAC species <u>50</u>	x 3 = <u>150</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>40</u>	x 5 = <u>200</u>	Column Totals <u>105</u>	<u>410</u>	Prevalence Index = B/A = <u>3.9</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = _____																			
FAC species <u>50</u>	x 3 = <u>150</u>																			
FACU species <u>15</u>	x 4 = <u>60</u>																			
UPL species <u>40</u>	x 5 = <u>200</u>																			
Column Totals <u>105</u>	<u>410</u>																			
Prevalence Index = B/A = <u>3.9</u>																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Festuca arundinacea</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC-</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Bromus carinatus</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>NL</u>																	
3. <u>Cirsium arvense</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>																	
4. <u>Agrostis gigantea</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>																	
5. <u>Sitanion hystrix</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU-</u>																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>105</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				
Remarks: Canal slope community																				
				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14"	10YR 2/2	99	10YR 3/2	1	C	M	si cl lo	very few medium distinct redox
14-20"	10YR 2/2	97	10YR 4/2	3	C	M	si cl lo	few medium distinct redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot taken 5' from edge of standing water, and 18" above OHWL as identified by change to more xeric plant community and heavy cover.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: <u>Northeast corner of Elm and 6th Street</u>	State: <u>OR</u>	Sampling Point: <u>41</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: <u>44.220</u>	Long: <u>-123.200</u>
Soil Map Unit Name: <u>Conser silty clay loam</u>	NWI Classification: <u>N/A</u>	Datum: _____
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE -- EC canal plot between EC-02 and EC-03	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	<input type="checkbox"/>	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: 5' r)				
1. <u>Polygonum amphibium</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Assorted annuals (see below)</u>	<u>20</u>	<input type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
<u>70</u> = Total Cover				
Woody Vine Stratum (Plot size: 15' r)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				

Remarks:
 Canal bottom community. Annuals young, but Conyza canadensis (FACU), Rumex crispus (FAC+), Bidens cernua (FACW+) identified.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input checked="" type="checkbox"/> Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
---	---	--

<p>Restrictive Layer (if present):</p> <p>Type: <u> </u></p> <p>Depth (inches): <u> </u></p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
---	--

Remarks:
OFFSITE - mapped hydric. Canal is inundated at other times of the year and thus satisfies Hydric Soil Criterion 3.

HYDROLOGY

Wetland Hydrology Indicators:	
<p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2)</p> <p><input checked="" type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>	<p><u>Secondary Indicators (2 or more required)</u></p> <p><input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</p> <p><input checked="" type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p> <p><input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)</p> <p><input type="checkbox"/> Frost-Heave Hummocks (D7)</p>

<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u></p> <p>Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u></p> <p>Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u> (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
---	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Canal was dry on date plot was recorded.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>42</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: <u>44.215</u>	Long: <u>-123.205</u>
Soil Map Unit Name: <u>Conser/Malabon Urban Land interface</u>	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE -- CC canal plot between EC-01 and EC-02.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
_____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>100</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover				% Bare Ground in Herb Stratum: <u>0</u>																
Remarks: Canal bottom community.																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<p> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </p>	<p>Indicators for Problematic Hydric Soils³:</p> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks) <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
--	--	--

<p>Restrictive Layer (if present):</p> Type: <u> </u> Depth (inches): <u> </u>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
--	--

Remarks:
 OFFSITE - Surface obscured by heavy Phalaris cover and standing water; consequently soil has likely developed hydric soil indicators.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

<p>Field Observations:</p> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1-6 inches</u> Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u> Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u> (includes capillary fringe)	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
---	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>43</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>canal bottom</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: <u>44.212</u>	Long: <u>-123.204</u>
Soil Map Unit Name: _____	Datum: _____	
Soil NWI Classification: <u>N/A</u>		
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: OFFSITE -- canal plot between CC-03 and CC-04, immediately west of Highway 99.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>15' r</u>)				
1. _____	_____	<input type="checkbox"/>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Remarks: Canal bottom community.				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - no soil sampling. Surface obscured by heavy Phalaris cover. Based on cover of Phalaris and evidence of standing water earlier in the year, soils at this location have likely developed hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Evidence of standing water earlier in the year - sediment crusts on leaves.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Junction City LWI</u>	City/County: <u>Lane</u>	Sampling Date: <u>6/2/2009</u>
Applicant/Owner: _____	State: <u>OR</u>	Sampling Point: <u>44</u>
Investigator(s): <u>ACS</u>	Section, Township, Range: _____	
Landform (hillslope, terrace, etc.): <u>swale</u>	Local relief (concave, convex, none) <u>none</u>	Slope (%) <u>minimal</u>
Subregion (LRR): <u>Western Mtns, Valleys, and Coast</u>	Lat: _____	Long: _____
Soil Map Unit Name: <u>Coberg silty clay loam</u>	Datum: _____	
Soil Map Unit Name: <u>Coberg silty clay loam</u>	NWI Classification: <u>N/A</u>	
Are climatic/hydrologic site conditions typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic? (If needed, explain any answers in Remarks")		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: OFFSITE - SE and NE corners of Milliron Rd. and Hwy 99. Part of FC-02.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals _____</td> <td>_____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals _____	_____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals _____	_____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: <u>15' r</u>)																				
1. <u>Rosa spp</u>	<u>FACW</u>	<input checked="" type="checkbox"/>	<u>10</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
<u>10</u> = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: <u>5' r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. <u>Scirpus microcarpus</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
<u>65</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Woody Vine Stratum (Plot size: <u>15' r</u>)																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum: <u>0</u>																				

Remarks:
 Visual cover in interior of parcel in the NW corner of Milliron Road and Highway 99.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

OFFSITE - Coberg silty clay loam mapped, but has Conser silty clay loam (hydric) inclusions and standing water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes No Depth (inches): 1"
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Shallow standing water in patches; debris lines and sediment crusts show extent of inundation.

Appendix D. OFWAM Answer Sheets and Locally Significant Wetland Determination

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: BC

Field date: 3/11/09; 4/21/09

Wetland Class: PEMCx

Investigators: ACS, TB

Method: on-site off-site

Observation point: Data Plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	C	C	A	A	A
2	B	C	A	A	A
3	C	C	C	B	B
4	B	A	B	C	A
5	A	C	A	B	A
6	A	C	C	A	B
7	A			B	
8	C				
9	B				
Descriptor	some	impacted	impacted	impacted	educational

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is not locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: CC

Field date: 3/11/09; 4/21/09, 6/2/09

Wetland Class: PEMCx

Investigators: ACS, TB

Method: on-site off-site

Observation point: Data Plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	B	C	A	A	A
2	B	C	A	A	B
3	C	C	C	B	B
4	A	A	B	B	B
5	A	C	A	B	A
6	A	C	C	A	B
7	A			A	
8	C				
9	C				
Descriptor	some	impacted	impacted	intact	potential

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: CC-01

Field date: 3/12/09

Wetland Class: PEMC, PFO1

Investigators: ACS, TB

Method: on-site off-site

Observation point: Data Plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	A	C	A	A	A
2	B	C	A	A	A
3	C	C	A	C	B
4	-	A	B	C	B
5	A	A	C	B	B
6	A	C	C	C	B
7	A			A	
8	A				
9	B				
Descriptor	diverse	impacted	intact	impacted	educational

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: CC-02

Field date: 3/12/09

Wetland Class: PABFx

Investigators: ACS, TB

Method: on-site off-site

Observation point: Road

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	A		A	A	
2	B		A	A	
3	C		C	B	
4	B		B	A	
5	B		A	B	
6	B		C	A	
7	A			B	
8	C				
9	B				
Descriptor	some	n/a	impacted	intact	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: CC-03

Field date: 3/11/09

Wetland Class: PUBFh

Investigators: ACS, TB

Method: on-site off-siteObservation point: 3rd and Maple

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	A	C	A	A	
2	B	B	A	A	
3	C	C	C	B	
4	C	A	B	C	
5	A	C	A	B	
6	A	C	C	A	
7	A			A	
8	C				
9	C				
Descriptor	some	impacted	impacted	intact	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: CC-04

Field date: 3/25/09, 4/21/09, 6/2/09

Wetland Class: PFO1, PEMC

Investigators: ACS, TB

Method: on-site off-site

Observation point: Data Plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	A	B	A	A	
2	A	B	A	A	
3	A	B	A	A	
4	B	A	A	B	
5	A	C	A	A	
6	A	C	C	A	
7	A			B	
8	C				
9	B				
Descriptor	diverse	impacted	intact	intact	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: EC

Field date: 3/12/09, 4/21/09, 6/2/09

Wetland Class: PEMCx

Investigators: ACS, TB

Method: on-site off-site

Observation point: data plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	B	C	A	A	
2	B	C	A	A	
3	C	C	C	B	
4	A	A	B	B	
5	A	C	A	B	
6	A	C	C	A	
7	A			A	
8	C				
9	C				
Descriptor	some	impacted	impacted	intact	NA

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is 001	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. either:		
a) created for the purpose of controlling, storing, or maintaining stormwater;		
b) used for active surface mining or active log ponds;		
c) a ditch without free and open connection to natural waters of the state and no food or game fish;		
d) less than one acre in size and created unintentionally from irrigation or construction; or		
e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.		
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides:		
a) "diverse habitat" or "habitat for some wildlife species";		
b) "intact" or "impacted or degraded" fish habitat;		
c) "intact" or "impacted or degraded" water quality; or		
d) "intact" or "impacted or degraded" hydrologic control.		
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: EC-01

Field date: 3/11/09

Wetland Class: PUB3G, PEMG

Investigators: ACS, TB

Method: on-site off-site

Observation point: Data Plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	A	C	A	A	
2	B	B	A	A	
3	C	C	A	B	
4	A	A	B	C	
5	A	C	A	B	
6	A	B	C	A	
7	A			A	
8	C				
9	B				
Descriptor	some	impacted	intact	intact	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: EC-02

Field date: 3/11/09

Wetland Class: PEMC

Investigators: ACS, TB

Method: on-site off-site

Observation point: Deal Street

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	C	C	A	A	
2	B	B	A	A	
3	C	C	A	B	
4	-	A	B	C	
5	A	C	A	B	
6	A	C	C	A	
7	A			A	
8	C				
9	C				
Descriptor	some	impacted	intact	intact	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: **FC-01**Field date: 3/11/09Wetland Class: PEMfInvestigators: ACS, TBMethod: on-site off-siteObservation point: Oaklea Drive

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	C	C	C	A	
2	C	B	A	A	
3	C	C	A	A	
4	A	C	A	C	
5	A	B	B	C	
6	A	B	A	B	
7	C			A	
8	B				
9	C				
Descriptor	some	impacted	impacted	intact	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: **FC-02**Field date: 4/21/09Wetland Class: PEM, PFOInvestigators: ACS, TBMethod: on-site off-siteObservation point: Milliron Street

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	A	C	B	A	
2	C	C	A	A	
3	C	C	A	A	
4	-	A	A	C	
5	A	B	B	C	
6	A	C	B	B	
7	A			B	
8	B				
9	C				
Descriptor	some	impacted	intact	impacted	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: FC-03

Field date: 4/21/09

Wetland Class: PEMCd

Investigators: ACS, TB

Method: on-site off-site

Observation point: Aerial photo

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	A	C	B	A	
2	B	B	A	A	
3	C	C	A	B	
4	C	A	B	B	
5	A	B	B	B	
6	A	C	B	B	
7	A			B	
8	B				
9	C				
Descriptor	some	impacted	intact	impacted	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: WC **Field date:** 4/21/09
Wetland Class: PEMCx **Investigators:** ACS, TB
Method: on-site off-site **Observation point:** Data Plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	B	C	A	A	A
2	B	C	A	A	A
3	C	C	C	B	B
4	C	A	B	B	C
5	A	C	A	B	C
6	A	C	C	A	B
7	A			A	
8	C				
9	C				
Descriptor	some	impacted	impacted	intact	potential

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Junction City Wetlands Inventory

Wetland Assessment Answer Sheet and LSW Determination



GENERAL INFORMATION

Wetland Code: **WC-01**Field date: 4/21/09Wetland Class: **PEM**Investigators: ACS, TBMethod: on-site off-siteObservation point: Data Plots

FUNCTION AND CONDITION ASSESSMENT ANSWERS

OFWAM Question	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Education
1	B	C	A	A	
2	B	B	A	A	
3	C	C	A	B	
4	-	A	B	B	
5	A	C	A	B	
6	A	C	B	B	
7	A			A	
8	C				
9	B				
Descriptor	some	impacted	intact	impacted	not approp.

LOCALLY SIGNIFICANT WETLAND (LSW) DETERMINATION

Exclusions. Wetland is not locally significant if one of the following conditions applies:	Yes	No
1. Wetland is artificially created entirely from upland AND is either: a) created for the purpose of controlling, storing, or maintaining stormwater; b) used for active surface mining or active log ponds; c) a ditch without free and open connection to natural waters of the state and no food or game fish; d) less than one acre in size and created unintentionally from irrigation or construction; or e) created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland or portion thereof is contaminated by hazardous substances, materials or wastes per 141-086.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exclusion criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland provides "diverse" wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland provides "intact" fish habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Wetland provides "intact" water quality function.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland provides "intact" hydrologic control function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Wetland is less than ¼ mile from a DEQ water quality limited water body (303 (d) list) and the wetland's water quality function is described as "intact" or "impacted or degraded."	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland contains one or more rare plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland is inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Wetland has a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids, and has "intact" or "impacted or degraded" fish habitat function.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LSW criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Optional LSW Criteria. Wetland is locally significant if it meets one or more of the following criteria:		
1. Wetland represents a locally unique native plant community AND provides: a) "diverse habitat" or "habitat for some wildlife species"; b) "intact" or "impacted or degraded" fish habitat; c) "intact" or "impacted or degraded" water quality; or d) "intact" or "impacted or degraded" hydrologic control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Wetland is publicly owned and has "educational uses" and such use is documented for that site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Optional LSW criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Determination: Wetland is locally significant		

Appendix E. Wetland Assessment Summary Sheets

Junction City Wetlands Inventory

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: BC

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	One Cowardin class with <5 species	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	Between 0.5 and 1 acre of open water	Wetland buffer is between 10 and 40%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Stream banks are extensively modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Impacted or degraded	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	Low wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Impacted or degraded	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Agriculture upslope of wetland
	Water has unrestricted flow out of wetland	
Education:	Has educational uses	
Rationale:	Wetland is open to the public	Public access to other habitats exist
	No visible hazards to public	Maintained public access point exists
	No intact fish or wildlife, but both functions not lost	Wetland is not limited mobility accessible

Junction City Wetlands Inventory

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: CC

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	One Cowardin class with >5 species	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	More than 1 acre of open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Stream banks are extensively modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Impacted or degraded	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	Low wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Urban uses upslope of wetland
	Wetland has minor flow restrictions	
Education:	Potential for education uses	
Rationale:	Wetland is open to the public	Other habitats can be observed not accessed
	One or two visible hazards to public	Maintained public access point exists
	No intact fish or wildlife, but both functions not lost	Wetland is not limited mobility accessible

Junction City Wetlands Inventory

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: CC-01

Wildlife Habitat:	Provides diverse habitat for wildlife	
Rationale:	More than one Cowardin class	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily open space
	No unvegetated open water	Wetland buffer is between 10 and 40%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Stream banks are extensively modified	Adjacent land is primarily open space
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Intact	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Impacted or degraded	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Open space downslope of wetland
	Wetland is less than 0.5 acre and not connected	Urban uses upslope of wetland
	Water has unrestricted flow out of wetland	
Education:	Has educational uses	
Rationale:	Wetland is open to the public	Other habitats can be observed not accessed
	No visible hazards to public	Unmaintained public access point exists
	No intact fish or wildlife, but both functions not lost	Wetland is not limited mobility accessible

Junction City Wetland Inventory

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: CC-02

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	More than one Cowardin class	No surface connection, but wetlands w/in 3 miles
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	Between 0.5 and 1 acre of open water	Wetland buffer is between 10 and 40%
	No surface connection, but waterbody w/in 1 mile	
Fish Habitat:	N/A	
Rationale:	No connected river, stream, pond or lake	No connected river, stream, pond or lake
	No connected river, stream, pond or lake	No connected river, stream, pond or lake
	No connected river, stream, pond or lake	No connected river, stream, pond or lake
Water Quality:	Impacted or degraded	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	Low wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Impacted or degraded	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Agriculture upslope of wetland
	Wetland has minor flow restrictions	
Education:	Not appropriate for educational uses	

Junction City Wetlands Inventory

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: CC-03

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	More than one Cowardin class	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	Less than 0.5 acre of open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Impacted or degraded	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	Low wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Urban uses upslope of wetland
	Water has unrestricted flow out of wetland	
Education:	Not appropriate for educational uses	

Junction City Wetlands Inventory

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: CC-04

Wildlife Habitat:	Provides diverse habitat for wildlife	
Rationale:	More than one Cowardin class	Surface water connection to other wetland
	Dominated by woody vegetation	No adjacent Water Quality limited streams
	High interspersion	Adjacent land is primarily developed uses
	Between 0.5 and 1 acre of open water	Wetland buffer is between 10 and 40%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Between 50% and 75% of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land use is primarily developed uses
	10% to 25% of stream has instream structures	No fish present in stream
Water Quality:	Intact	
Rationale:	Primary water source is surface flow	Wetland is more than 5 acres
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by woody vegetation
	Wetland floods or ponds	Development downslope of wetland
	Wetland is more than 5 acres	Agriculture upslope of wetland
	Wetland has minor flow restrictions	
Education:	Not appropriate for educational uses	

Junction City LWI

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: EC

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	One Cowardin class with >5 species	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	More than 1 acre of open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Stream banks are extensively modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Impacted or degraded	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	Low wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Urban uses upslope of wetland
	Wetland has minor flow restrictions	
Education:	Not appropriate for educational uses	

Junction City LWI

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: EC-01

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	More than one Cowardin class	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	More than 1 acre of open water	Wetland buffer is between 10 and 40%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	Some non-salmonid fish species present in stream
Water Quality:	Intact	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	Low wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connect	Urban uses upslope of wetland
	Water has unrestricted flow out of wetland	
Education:	Not appropriate for educational uses	

Junction City LWI

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: EC-02

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	One Cowardin class with <5 species	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	No unvegetated open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Intact	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Urban uses upslope of wetland
	Water has unrestricted flow out of wetland	
Education:	Not appropriate for educational uses	

Junction City Wetlands Inventory

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: FC-01

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	One Cowardin class with <5 species	Surface water connection to other wetland
	Dominated by emergent vegetation	One or more Water Quality limited streams
	Low interspersion	Adjacent land is primarily agriculture
	No unvegetated open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	One or more adjacent Water Quality limited streams
	Only portions of stream are modified	Adjacent land use is primarily agriculture
	<10% of stream has instream structures	Some non-salmonid fish species present in stream
Water Quality:	Impacted or degraded	
Rationale:	Primary water source is groundwater	Wetland is more than 5 acres
	Wetland floods or ponds	Adjacent land use is primarily agriculture
	High wetland vegetation cover	One or more adjacent Water Quality limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation
	Wetland floods or ponds	Agriculture downslope of wetland
	Wetland is more than 5 acres	Urban uses upslope of wetland
	Water has unrestricted flow out of wetland	
Education:	Not appropriate for educational uses	

Junction City LWI

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: FC-02

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	More than one Cowardin class	Surface water connection to other wetland
	Dominated by emergent vegetation	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily agriculture
	No unvegetated open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Stream banks are extensively modified	Adjacent land use is primarily agriculture
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Intact	
Rationale:	Precipitation or sheet flow	Wetland is more than 5 acres
	Wetland floods or ponds	Adjacent land use is primarily agriculture
	High wetland vegetation cover	One or more moderate Water Quality streams
Hydrologic Control:	Impacted or degraded	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation
	Wetland floods or ponds	Agriculture downslope of wetland
	Wetland is more than 5 acres	Agriculture upslope of wetland
	Water has unrestricted flow out of wetland	
Education:	Not appropriate for educational uses	

Junction City LWI

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: FC-03

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	More than one Cowardin class	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersions	Adjacent land is primarily agriculture
	Less than 0.5 acre of open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land use is primarily agriculture
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Intact	
Rationale:	Primary water source is precipitation	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily agriculture
	High wetland vegetation cover	One or more moderate Water Quality streams
Hydrologic Control:	Impacted or degraded	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Agriculture downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Agriculture upslope of wetland
	Wetland has minor flow restrictions	
Education:	Not appropriate for educational uses	

Junction City LWI

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: WC

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	One Cowardin class with >5 species	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	Less than 0.5 acre of open water	Wetland buffer is less than 10%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Stream banks are extensively modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Impacted or degraded	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	Low wetland vegetation cover	No adjacent Water Quality Limited streams
Hydrologic Control:	Intact	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Development downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Urban uses upslope of wetland
	Wetland has minor flow restrictions	
Education:	Potential for education uses	
Rationale:	Wetland is open to the public	No access or observation potential
	No visible hazards to public	No access point to wetland exists
	No intact fish or wildlife, but both functions not lost	Wetland is not limited mobility accessible

Junction City LWI

OFWAM Functions and Conditions Summary Sheet

Wetland Assessment Unit: WC-01

Wildlife Habitat:	Provides habitat for some wildlife species	
Rationale:	One Cowardin class with >5 species	Surface water connection to other wetland
	Dominated by emergent vegetation and ponding	No adjacent Water Quality limited streams
	Low interspersion	Adjacent land is primarily developed uses
	No unvegetated open water	Wetland buffer is between 10 and 40%
	Surface water connection to water body	
Fish Habitat:	Impacted or degraded	
Rationale:	Less than 50% of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land use is primarily developed uses
	<10% of stream has instream structures	No fish present in stream
Water Quality:	Intact	
Rationale:	Primary water source is surface flow	Wetland is 0.5 to 5 acres, or <0.5 and connected
	Wetland floods or ponds	Adjacent land use is primarily developed uses
	High wetland vegetation cover	One or more moderate Water Quality streams
Hydrologic Control:	Impacted or degraded	
Rationale:	Wetland is within 100 year floodplain	Dominated by emergent vegetation and ponding
	Wetland floods or ponds	Agriculture downslope of wetland
	Wetland is 0.5 to 5 acres, or <0.5 and connected	Urban uses upslope of wetland
	Wetland has minor flow restrictions	
Education:	Not appropriate for educational uses	

Appendix F. GIS Data Log

Junction City Local Wetland Inventory

GIS Data Log

GIS Data	Source/Date	Shapefile Type	Description
Aerial Photo (Color)	USDA Summer 2009	Extracted Imagery	Compressed County Mosaics (CCM) from the Summer 2009 NAIP (National Agriculture Imagery Program) flights. The Oregon Department of Administrative Services' Geospatial Enterprise Office (GEO) and Oregon State University collaborate to provide this data – one-meter resolution. Reprojected to Oregon Lambert projection by Randy Sounhein, GIS Coordinator, Department of State Lands. ftp://159.121.106.159/imagery/CCM2009/
Aerial Photo (Color)	USDA June 5, 2007	Extracted Imagery	2005 0.5 meter orthoimagery - A 9:1 compressed WGS84 mosaic derived from half-meter resolution color Digital Orthophoto Quadrangles (DOQ) of the entire state of Oregon from the summer of 2005 for multiple state agencies in Oregon.
City Limits	No Metadata – obtained from Junction City	Polygon	Likely obtained from: http://spatialdata.oregonexplorer.info/GPT9/catalog/search/search.page
UGB	No Metadata – obtained from Junction City	Polygon	Likely obtained from: http://spatialdata.oregonexplorer.info/GPT9/catalog/search/search.page
100- and 500- year floodplains	FEMA	Polygon	Q3 Flood data taken from FIRMS
Streams	Obtained from Junction City – no metadata provided	Line	
Lakes	Obtained from Junction City – no metadata provided	Polygon	
Roads	Obtained from Junction City – no metadata provided	Line	
Right-of-Way	Obtained from Junction City – no metadata provided	Polygon	
Tax Lots	Obtained from Junction City – no metadata provided	Polygon	
Zoning	Obtained from Junction City – no metadata provided	Polygon	
Comprehensive Plan Designation	Obtained from Junction City – no metadata provided	Polygon	
Select Waterbodies	OR BLM (Sept. 26, 2005)	Polygon	Extracted from Pacific North West Hydrography Framework: Sounds, bays, lakes, ponds, wetlands, reservoirs, inundation areas.
Soils	NRCS	Polygon	
Highways	Obtained from Lane County – no metadata - provided	Line	Likely obtained from: http://spatialdata.oregonexplorer.info/GPT9/catalog/search/search.page
Railroads	Obtained from Lane County – no metadata - provided	Line	Likely obtained from: http://spatialdata.oregonexplorer.info/GPT9/catalog/search/search.page
Signed Routes	ODOT	Line	Provides location of routes and cross-reference to ODOT highway numbers file, includes all applicable jurisdictions of roadways to give a complete picture of roadways in Oregon.
Hydrologic Unit Code (6th Field)	BLM/ USDA/NRCS	Polygon	http://navigator.state.or.us/sdl/data/shapefile/k24/hydro_units_6th.zip
Public Land Survey System	BLM	Polygon	http://www.geocommunicator.gov/blmMap/MapLSIS.jsp

Appendix G. DSL Wetland Determination Files

Junction City Local Wetland Inventory

DSL Wetland Determination Files

DSL Number	Decision Date	Legal (TRS/TL)	Location	Study Area	Wetland	Other Features	Size	Farmed	Description
06-0682	12/28/2008	T15S R5W S36 TL 702 and east portion of 700	Hwy 99	NA	es	NA	53 ac	NA	Wastewater Treatment Lagoon Expansion
04-0250	4/6/2005	T15S R4W W31, TL 2400, 2500	Oaklea Drive N of High Pass Road	NA	es	NA	NA	NA	Temporary determination
04-0254	7/28/2004	T15S R4W S31 and 5W S36, TL 1800	Oaklea Drive N of High Pass Road	63 ac	es	1 ditch and 1 creek	20.89 ac	NA	3 wetlands, Tietzel Site Old 98-0220
03-0390	8/7/2003	T16S R04W S20 TL 100	4 mi S of Junction City on S side of Milliron Road between Hwy 99 railroad tracks	38 ac	es	1 ditch	5.67 ac	es	Booth Industrial Park
02-0613	12/31/2002	T15S R4W S32 Tls 8300 8400 2300 4400 4500 6700 6800 8000 T16S R4W S5 Tls 309, 101, 300, 4314	River Road at Hwy 99	2.2 ac	es	1 ditch	0.11 ac	NA	Only the ROW in each lot was investigated
01-0343	11/26/2001	T16S R4W S17 TL 201 504	E of Hwy 99 at Milliron Rd, W of RR tracks	NA	es	ditches	1.42 ac	es	44.4 cy was removed for ditch
99-0278	1/25/2000	T15S R4W S32 TL 100 900	3 mi S of Harrisburg on River Road	200 ac	es	irrigation channel	50.06	es	Prior converted cropland
99-0208	7/6/1999	T15S R4W S32BD	9th Ave between Deal St Birch St	0.25 ac	es	6-ft wide creek	0.01 ac	No	Public ROW, trib to Flat Creek
98-0239	6/15/1998	T15S R5W S36 TL 500 T15S R4W S31 Tls 2400 2500	W side of Oaklea Drive, 0.9 m W of Hwy 99	263 ac	es	No	3.8 ac	es	Oklea Rd/Lemon Farm, adjacent to sewage ponds
97-0314	8/26/1997	T15S R4W S19, 29, 30, 32	Oaklea Drive - Junction 58/Pacific Hwy (99W) 1.5 mi section	1.5 mi.	es	open water/drainage	4.65 ac	No	11 wetlands (PF, PEM), chanelized segment of tributary to flat creek runs parallel to E side
90-0137	12/27/1990	T16S R4W S17 Tls 900, 1700, 1800	3 mi S of Junction City NE of intersection of 99E Milliron Rd	50 ac	es	ditches/swales	6.7 ac	es	Only wetland is bottom of ditches

Appendix H. Technical Staff and Qualifications

Tim Brooks, ASLA: Principal Environmental Planner

Project Role: Project Manager

Project Responsibilities: Wetland inventory, assessment; agency coordination

Tim has more than 20 years of experience managing State Goal 5 natural resource inventory and planning projects for local communities in Oregon. Tim managed wetland inventories for the cities of Albany, Corvallis, Damascus, Gresham, Newberg, Portland, Prineville, West Linn and Woodburn. In addition to project management, Tim has completed field investigations, wetland delineations and assessments, sensitive species surveys, and wildlife habitat assessments for both public and private clients throughout Oregon and Washington. For more than 12 years, Tim prepared inventories and developed conservation plans for wetland, stream and habitat resources for the City of Portland. Tim completed the DSL/Corps/USFWS Interagency Wetland Delineation Course in 1993. Beginning in 1995, Tim worked under the guidance of Andy Castelle and other professional wetland scientists, and has completed specialized courses in wetland vegetation and ecology.

Anita Cate Smyth, PWS: Wetland Scientist

Project Role: Senior Wetland Scientist

Project Responsibilities: Wetland determinations and assessments

Anita is a Professional Wetland Scientist with 15 years of experience in natural resource inventories, with emphasis on wetland delineation and permitting. She holds Professional Master's Degree in Environmental Sciences from Oregon State University. She spent two years at Clackamas County's Department of Transportation and Development, Engineering Section as a program manager and a resource for wetland and other environmental expertise. During her nine years at a multidisciplinary civil engineering firm, she expanded that technical and project management expertise through execution of numerous wetland mitigation site design projects, natural resource inventories, and riparian and wetland functional assessments as stand-alone projects and as part of Joint Permit Applications for specific actions. Prior to joining Winterbrook Planning, Anita formed Westbrook Science & Design, LLC, a woman-owned business focused on using her experience and talent on behalf of public and private clients in Oregon and Idaho.

Christine Robertson, AICP, LEED AP: Associate Planner

Project Role: GIS Technician

Project Responsibilities: Mapping

Christine has over five years of environmental planning and GIS experience. She holds a Master of Community Planning from the University of Cincinnati, where she received her GIS training. For her graduate thesis, she performed a green-roof build-out analysis for the university and quantified the resultant reduction in stormwater runoff, using GIS and Technical Release 55 (TR-55). During her professional career she has performed numerous GIS-based analyses including: buildable lands analyses, urban growth boundary expansion analyses and various environmental / social impact assessments.

Appendix I. 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, Office of Biological Services, FWS/OBS-79/31. 103 pp.

Environmental Laboratory, 1987. *Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1)*, (U.S. Army Corps of Engineers).

Environmental Laboratory, 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. Technical Report ERDC/EL TR-08-13. U.S. Army Corps of Engineers Engineer Research and Development Center.

Federal Register, 1982. *Title 33: Navigation and Navigable Waters, Chapter 11, Regulatory Programs of the Corps of Engineers*, Vol. 47, No. 138, p31810, US Government Printing Office, Washington, D.C.

Land Conservation and Development Commission, 1996. *Statewide Planning Goal 5. Amended Administrative Rules OAR 660, DIV 23*.

Oregon Department of Environmental Quality, 2007. *DEQ's 2004/2006 303(d) List of Water Quality Limited Waterbodies* (<http://www.deq.state.or.us/wq/assessment/rpt0406/search.asp>).

Oregon Department of State Lands, 2001. *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites I. Willamette Valley Ecoregion Riverine Impounding and Slope/Flats Subclasses*.

Oregon Department of State Lands, 2009 (amended). *Local Wetlands Inventory (LWI) Standards and Guidelines*. Oregon Administrative Rules (OAR) 141-086-0180 through 141-086-0240.

Patching, William. 1987. *Soil Survey of Lane County Area, Oregon*. U.S.D.A. Soil Conservation Service.

U.S.D.A., Natural Resource Conservation Service. 2009. *Hydric Soils List for Lane County Area*. (ftp://ftp-fc.sc.egov.usda.gov/MO1/hydric_pdf/oregon/OR637_hydric.pdf).

City of Junction City LOCAL WETLAND INVENTORY

LOCAL WETLAND INVENTORY
Junction City - Central



Legend:

- UGB / Study Area
- City Limits
- Tax Lots
- Township (PLSS)
- Range (PLSS)
- Highways
- Railroads
- Streams
- Ponds
- ★ Probable Wetland (PW)
- ▲ Offsite Observation Point
- × Onsite
- Wetlands
- Wetlands with DSL delineation
- Hydric Soils Outside UGB
- Floodplain
- Watershed Boundary

APPROVED LOCAL WETLANDS INVENTORY
12/16/2011 AB
OREGON DEPARTMENT OF STATE LANDS

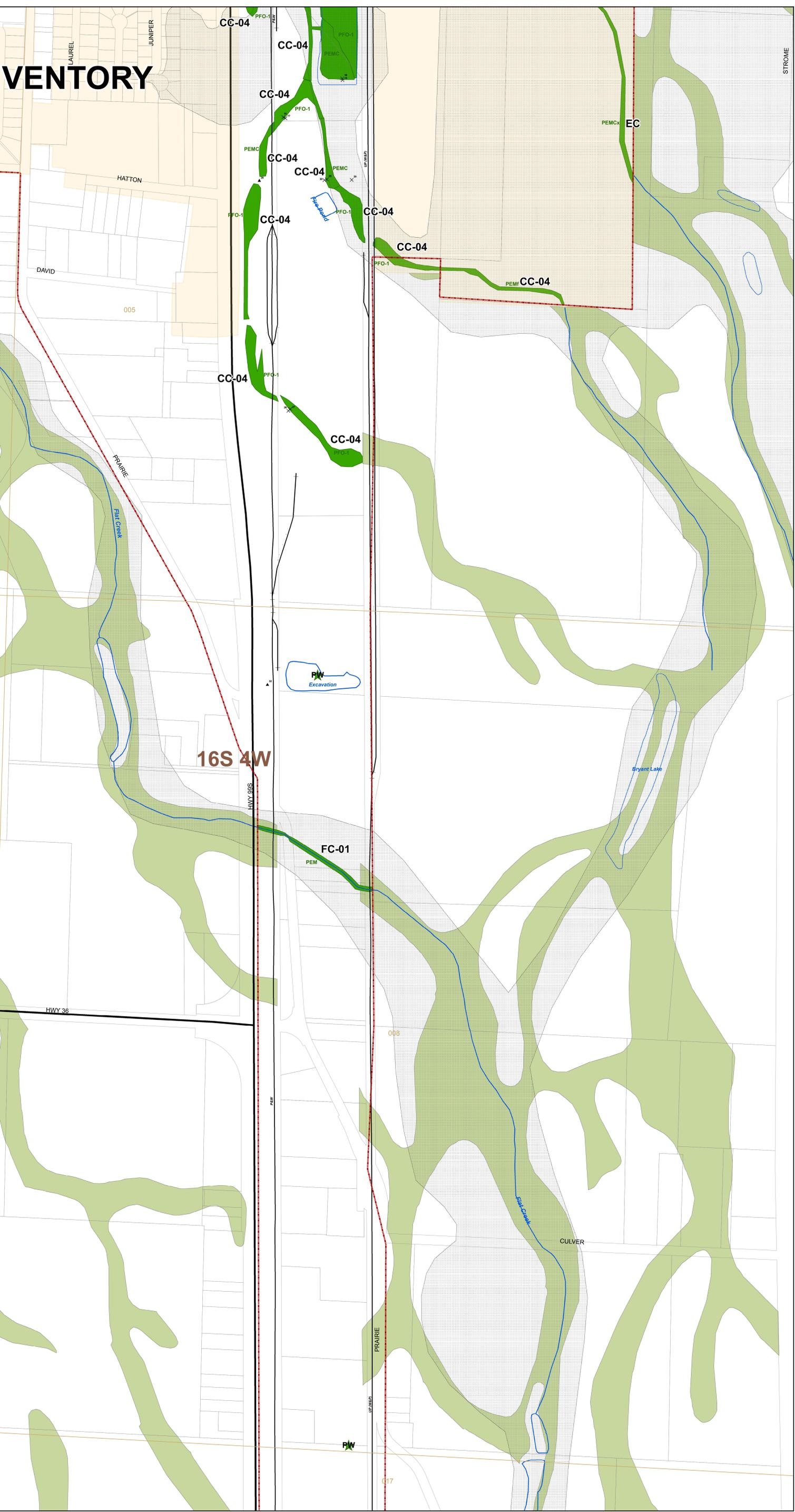
Scale: 0 250 500 1,000 Feet

<p>Cowardin Codes</p> <p>PEM: Palustrine emergent PEMF: Palustrine emergent, farmed PEMCx: Palustrine emergent, seasonally flooded, excavated PFO1: Palustrine forested, broad leaved deciduous PUB: Palustrine unconsolidated bottom PUBx: Palustrine unconsolidated bottom, excavated PUBFh: Palustrine unconsolidated bottom, semi-permanently flooded, impounded PABFh: Palustrine aquatic bed, semi-permanently flooded, excavated</p>	<p>Wetland Codes</p> <p>BC: Bergstrom Canal CC: Central Canal EC: Eastern Canal FC: Flat Creek WC: Western Canal</p>
--	---

Prepared By: Winterbrook Planning, June 2011
Projection: Oregon Lambert conformal conic
Datum: NAD 83; **Units:** International feet: 3.28084;
Spheroid: GRS1980
Absolute Scale: 1:2,400
Map Scale: 1 inch = 200 feet (36" x 48")



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.



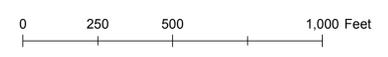
City of Junction City LOCAL WETLAND INVENTORY

LOCAL WETLAND INVENTORY Junction City - Northeast



APPROVED LOCAL WETLANDS INVENTORY
12/16/2011 AB
OREGON DEPARTMENT OF STATE LANDS

- UGB / Study Area
- City Limits
- Tax Lots
- Township (PLSS)
- Range (PLSS)
- Highways
- Railroads
- Streams
- Ponds
- ★ Probable Wetland (PW)
- ▲ Offsite Observation Point
- × Sample Plot
- Wetlands
- Wetlands with DSL delineation
- Hydric Soils Outside UGB
- Floodplain
- Watershed Boundary



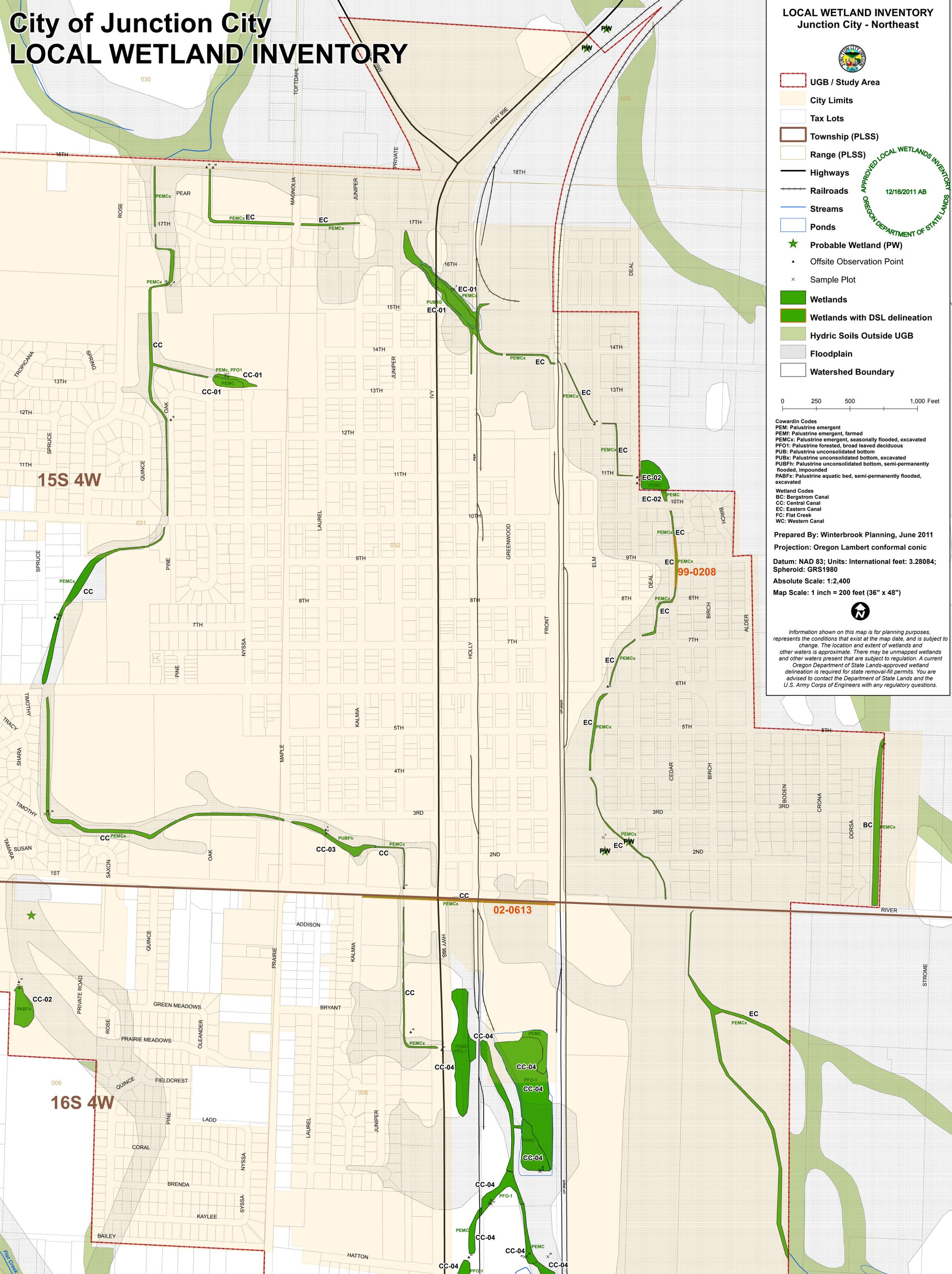
Cowardin Codes
 PEM: Palustrine emergent
 PEME: Palustrine emergent, farmed
 PEMCX: Palustrine emergent, seasonally flooded, excavated
 PFO1: Palustrine forested, broad leaved deciduous
 PUB: Palustrine unconsolidated bottom
 PUBX: Palustrine unconsolidated bottom, excavated
 PUBFH: Palustrine unconsolidated bottom, semi-permanently flooded, impounded
 PABFX: Palustrine aquatic bed, semi-permanently flooded, excavated

Wetland Codes
 BC: Bergstrom Canal
 CC: Central Canal
 EC: Eastern Canal
 FC: Flat Creek
 WC: Western Canal

Prepared By: Winterbrook Planning, June 2011
 Projection: Oregon Lambert conformal conic
 Datum: NAD 83; Units: International feet: 3.28084;
 Spheroid: GRS1980
 Absolute Scale: 1:2,400
 Map Scale: 1 inch = 200 feet (36" x 48")



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.



15S 4W

16S 4W

99-0208

02-0613

City of Junction City LOCAL WETLAND INVENTORY



LOCAL WETLAND INVENTORY Junction City - Northwest



- | | |
|------------------|-------------------------------|
| UGB / Study Area | Probable Wetland (PW) |
| City Limits | Offsite Observation Point |
| Tax Lots | Sample Plot |
| Township (PLSS) | Wetlands |
| Range (PLSS) | Wetlands with DSL delineation |
| Highways | Hydric Soils Outside UGB |
| Railroads | Floodplain |
| Streams | Watershed Boundary |
| Ponds | |

0 250 500 1,000 Feet

Cowardin Codes
 PEM: Palustrine emergent
 PEMf: Palustrine emergent, farmed
 PEMCx: Palustrine emergent, seasonally flooded, excavated
 PFO: Palustrine forested, broad leaved deciduous
 PUB: Palustrine unconsolidated bottom
 PUBx: Palustrine unconsolidated bottom, excavated
 PUBFh: Palustrine unconsolidated bottom, semi-permanently flooded, impounded
 PABF: Palustrine aquatic bed, semi-permanently flooded, excavated

Wetland Codes
 EC: Bergstrom Canal
 CC: Central Canal
 EC: Eastern Canal
 FC: Flat Creek
 WC: Western Canal

Prepared By: Winterbrook Planning, June 2011
 Projection: Oregon Lambert conformal conic
 Datum: NAD 83; Units: International feet: 3.28084;
 Spheroid: GRS1980
 Absolute Scale: 1:2,400
 Map Scale: 1 inch = 200 feet (36" x 48")



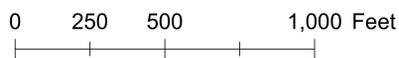
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

City of Junction City LOCAL WETLAND INVENTORY

LOCAL WETLAND INVENTORY Junction City - South Central



- UGB / Study Area
- City Limits
- Tax Lots
- Township (PLSS)
- Range (PLSS)
- Highways
- Railroads
- Streams
- Ponds
- Probable Wetland (PW)
- Offsite Observation Point
- Sample Plot
- Wetlands
- Wetlands with DSL delineation
- Hydric Soils Outside UGB
- Floodplain
- Watershed Boundary



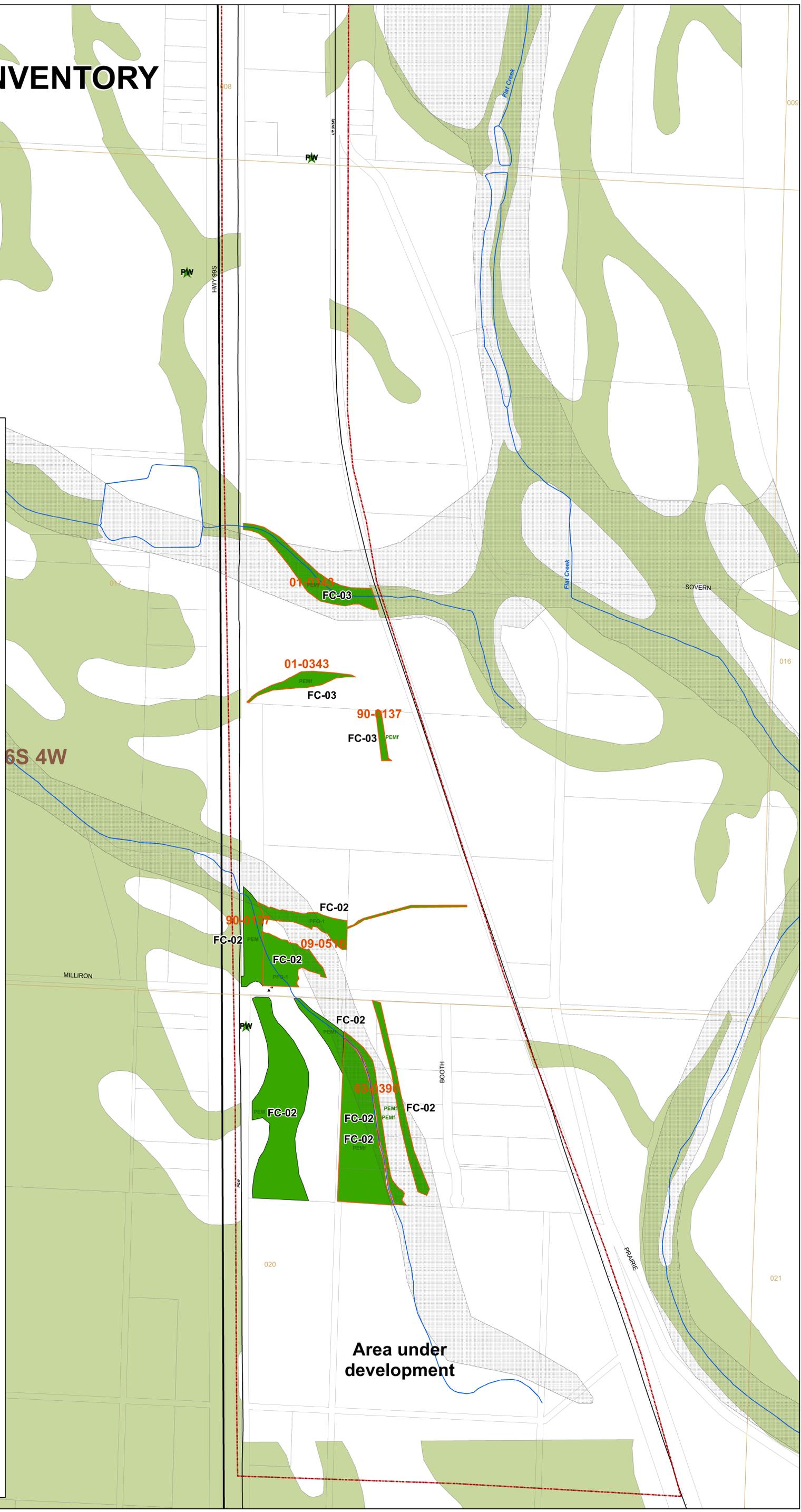
Cowardin Codes
 PEM: Palustrine emergent
 PEMF: Palustrine emergent, farmed
 PEMC: Palustrine emergent, seasonally flooded, excavated
 PFO1: Palustrine forested, broad leaved deciduous
 PUB: Palustrine unconsolidated bottom
 PUBX: Palustrine unconsolidated bottom, excavated
 PUBFh: Palustrine unconsolidated bottom, semi-permanently flooded, impounded
 PABF: Palustrine aquatic bed, semi-permanently flooded, excavated

Wetland Codes
 BC: Bergstrom Canal
 CC: Central Canal
 EC: Eastern Canal
 FC: Flat Creek
 WC: Western Canal

Prepared By: Winterbrook Planning, June 2011
Projection: Oregon Lambert conformal conic
Datum: NAD 83; **Units:** International feet: 3.28084;
Spheroid: GRS1980
Absolute Scale: 1:2,400
Map Scale: 1 inch = 200 feet (36" x 48")



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.



Area under development