

Hermiston Wetland and Natural Resource Inventory



Prepared for

City of Hermiston, Oregon

Prepared by

Schott and Associates, Inc.
Aurora, Oregon

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1.0 INTRODUCTION

In 2011 Schott and Associates was part of a team led by Johnson Reid LLC to conduct a Local Wetland Inventory as part of an update to the Hermiston Comprehensive Plans. The purpose of the inventory was to identify and assess the functions of wetlands to meet statewide Goal 5 and other planning responsibilities. The Hermiston study area was comprised of approximately 8,980.4 acres of land. Wetlands were identified according to criteria outlined in the *1987 Corps of Engineers Wetlands Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*.

The need for wetland planning is important as they are protected by state and federal laws. In Oregon, the Division of State Lands (DSL) regulates activities involving fill, removal, or alteration of material in wetlands or waterways. The U.S. Army Corps of Engineers (COE) regulates the discharge of dredged or fill materials into waters and adjacent wetlands of the United States under authority of Section 404 of the Clean Water Act (*Federal Register, 1986*). For purposes of state and federal permitting programs wetlands are defined as follows (*Federal register, 1980, 1982*):

Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Local Wetland Inventories are conducted in planning regions (e.g. city, county, rural service area) where site specific data suggests that wetlands may be present. For example, the National Wetland Inventory (NWI) indicated wetlands were present in the City of Hermiston. The Umatilla County Area Soil Survey (NRCS Web Soil Surveys) maps also indicate where hydric soils may be present. While these are reliable sources indicating the possible presence of wetlands, they are not suitable planning tools. The majority of the NWI mapping occurs via an on-screen mapping process that although incorporates numerous datasets, may not be accurate in all situations. Occasionally the NWI misses wetlands found in the field, or mapped areas that are not wetlands.

Objectives of this study were to:

- Provide current mapping of wetland boundaries at a scale suitable for planning
- Determine whether additional wetlands not mapped on the NWI are present
- Calculate the area of wetlands
- Assess wetland functions and values

1.1 GENERAL DESCRIPTION OF THE STUDY AREA

The City of Hermiston study area comprises 8,980.4 acres of nearly level land, about 643 feet above sea level. Hermiston is located in northeastern Oregon in the northwest corner of Umatilla County near the junction of I-82 and I-84. Hermiston is located south of the Columbia River and adjacent east of the Umatilla River, with drainage generally west to the Umatilla River.

The inventory area consists of the urban growth boundary of the City of Hermiston. The region is flat and non-urban areas are generally farmed. Hermiston is known for its watermelon production.

In the Hermiston study area, approximately 120.30 acres of wetland were mapped. Wetlands were mapped according to the Cowardin classification. Two types were identified within the study area boundaries: palustrine emergent and palustrine forest wetlands. Water regime varied and included groundwater fed semi-permanently flooded/saturated wetlands. Most wetlands within the study area were associated with leakage from irrigation systems within the city.

Wetland quality was evaluated using the *Oregon Freshwater Assessment Methodology*. Habitat functions varied between the different wetlands, a good number of the wetlands have been affected by agriculture and water diversions due to the irrigation district.

The Umatilla River runs the length of the western border of the city. Associated wetlands scored higher on habitat functions due to their proximity to the river.

2.0 PROJECT METHODS

2.1 PUBLIC INVOLVEMENT

The initial inventory was based nearly entirely on aerial photograph interpretation. The results of the aerial photograph interpretation were used to identify any property owner which had wetlands or waters of the state on or adjacent to their property. In 2011, the City notified the public by notices in the local paper and direct mail requesting site access by appointment to conduct an on the ground inventory. The City of Hermiston compiled a list of tax lots where the property owners had granted or denied access. A photo base map with tax lot boundaries was used by Dr. Martin Schott during the inventory. The intent was to separate the wetland special images associated with irrigation from actual wetlands. Upon completion of the field work and mapping, the City again notified the property owners with mapped wetlands and waters of the State. The results were presented to both the City Council and the public. After the presentation the public was invited to ask questions and provide comments.

2.2 LOCAL WETLAND INVENTORY METHODS

The initial phase of the inventory consisted of a review of information including maps and city boundaries. Prior to visiting the site information was gathered and examined for indications that jurisdictional wetlands may exist on the project site. Recent and aerial photographs provided by Google Earth were reviewed to determine the projected presence of wetlands. The Oregon Department of State Lands was contacted to gather any previous wetland determinations or delineations within project area boundaries. Additionally, the National Wetland Inventory (NWI) map was generated using the U.S. Fish and Wildlife Service Wetland Mapper. Due to the Umatilla River presence along the western boundary of the city the 100 year floodplain was also identified. Finally, a review of soils was performed by accessing the online soils map generated using the Natural Resources Conservation Service (NRCS) to identify hydric soils information.

A three day site visit in the second week of July 2012 was conducted to inventory the wetlands. All the properties where access was granted were visited, a wetland determination was made and the wetland boundaries were mapped on aerial photographs. Properties where access was not granted were viewed, if possible, from public roads, or across property lines where access had been granted.

Several potential wetlands were not visible, where access had not been granted so these were identified by spectral images.

Four wetlands were identified as less than 0.50 acres in size and where coded as "PW" (potential wetland), no further characterization or assessment was required for these areas (OAR 141-86-0210(11)). All wetlands larger than 0.50 acres in size were identified and mapped as polygons to the best extent possible. Characterization and assessment forms for each wetland are attached in the Appendices of the LWI.

The wetlands mapped on the aerial photographs were digitized into GIS by Real Geographic's, a cartography company.

2.2.1 Routine Off-site Determination

Off-site determinations were conducted where landowners denied access. Off-site wetland identification involved mapping wetlands on aerial photos without field verified sample plots. In this study, the investigator was able to view some of the wetlands where access was denied from public roads. Ground-truthing areas of restricted access was done by nearby viewing and interpretation based on photo signatures of adjacent wetlands. Additional information was gathered including USGS topographic maps, NRCS soil surveys and National Wetland Inventory maps.

2.2.2 Routine On-site Determination

The field study was completed by Dr. Martin Schott, Ph.D., PWS. As allowed on properties Schott initially walked the site to assess the presence or absence of onsite wetlands and waters prior to collecting data. The *1987 Manual and Regional Supplement to the Corps of Engineers Delineation Manual: Arid West Region* were used to determine the presence or absence of State of Oregon wetland boundaries and Federal jurisdictional wetlands. The manuals require independent evidence of three parameters for an area to be declared as wetland: hydric soils, hydrophytic vegetation, and wetland hydrology. Sample plots were located in areas identified during the site walk over which had the greatest potential to be wetlands. If the sample plot met the three criteria an adjacent sample plot was established in the adjacent upland. For each sample plot, data of vegetation, hydrology, and soils were collected, recorded in the field, and later transferred to data forms (Appendix: B).

Wetlands were mapped in the field on aerial photographs. Mapping was conducted by Dr. Martin Schott and transferred to maps by Justin Healy at Real Geographic's LLC.

2.3 WETLAND QUALITY ASSESSMENT

2.3.1 The Oregon Freshwater Assessment Methodology

The *Oregon Freshwater Assessment Methodology* (OFWAM) (Roth et al. 1996) was used to assess the functions and conditions of the wetlands. This method provides standards for rating 9 categories: wildlife habitat, fish habitat, water quality, hydrologic control, sensitivity to impact, enhancement potential, education, recreation and aesthetic quality. Factors such as size of wetland, structural and biological diversity, presence of rare or endangered species, land-use, and access are used in the rating

system. Data from field notes, referencing aerial photographs, and information gathered from public agencies were used to complete the wetland assessment.

2.3.2 Wetlands of Special Interest for Protection

A series of ten questions are provided in the OFWAM. A “yes” answer to any of the ten questions may place the wetland into the “special interest for protection” category. Any wetlands that fell in this category are indicated on the wetland characterization sheet.

2.3.3 Field Methods

Field work methods included collecting pertinent information on each wetland identified either onsite or offsite to determine boundaries for the LWI. Data collected was applied to the Wetland Characterization forms for the OFWAM. Information included general delineation information, Cowardin classes, wetland disturbances, hydrology sources, and habitat features beneficial to wildlife. Habitat features included presence of wildlife or fish, degree of vegetation cover, and presence of large woody debris and habitat function.

Off-site determinations were based largely on aerial photography. Visual confirmation from nearby viewing areas was confirmed to the extent practicable.

2.3.4 Office Assessment

Data collected in the field was used to answer questions for each function and condition of the wetland under the OFWAM assessment. Additional information regarding wetlands and landscape setting were gathered in the office. Relevant agencies such as U.S. Fish and Wildlife Service, Oregon Department of Fish & Wildlife and Oregon Department of Quality were contacted to obtain pertinent information for the OFWAM assessment questions. Spreadsheets were used to summarize the data.

Fish Habitat: U.S. Fish and Wildlife website offers an Information, Planning, and Conservation (IPaC) interactive webpage as a resource to gather Endangered Species Act species list. Two fish species were listed to be threatened.

Table 1. Federal Endangered Species Act Status of Fish Species Found in the Hermiston Area

Species	Scientific Name	Population	Status	Contact
Bull Trout	<i>Salvelinus confluentus</i>	Lower 48, USA	Threatened	Oregon Department of Fish & Wildlife
Steelhead	<i>Oncorhynchus(=salmo mykiss)</i>	Middle Columbia River	Threatened	USFWS

Water Quality: According to the Oregon Department of Environmental Quality 2010 Integrated Report the Umatilla River is listed as water quality limited on the 303(d) list. The Umatilla and Columbia River confluence is just northwest of the City of Hermiston. Approximate Umatilla River miles 5 through 10 run along the western border of the city. As per the DEQ 303 (d) list miles 0-32 where referenced and listed as water quality limited for ammonia, flow modification, habitat modification, iron, and Manganese.

Floodplains: The Umatilla River runs along the western boundary of Hermiston. A 100-year flood plain was mapped along the river.

Land Use: Outside of the City, the majority of the land is undeveloped or used for agricultural purposes. Adjacent to the Umatilla River along the western border of the study area land use was predominantly pasture land or open space.

3.0 CARTOGRAPHY

Justin Healy, of Real Geographic's originally digitized wetland and sample plot locations from field maps provided by Schott & Associates. Data was digitized using aerial photography and tax lot data with ESRI ArcGIS software. Locations of wetlands and sample plots were reviewed and verified by Schott and Associates. Christine Maynard of Cafferata Consulting completed all subsequent GIS work, including creation of the following GIS files (in ESRI Shapefile format): artificial wetlands, probable wetlands, streams, and major roads. Cafferata Consulting was also responsible for project cartography and completion of digital data attributes, per DSL requirements. The stream layer was created using a combination of field-delineated waters features (as observed by Schott & Associates), and those mapped by the National Hydrography Dataset (NHD) Umatilla County streams layer (NRCS 2012). Major roads were created using digital data from the Oregon Department of Transportation (2012).

4.0 STUDY AREA CHARACTERISTICS

4.1 SETTING

Hermiston is located south of the Columbia River, north of Interstate 84 and east of the Umatilla River. More specifically, the northern urban growth boundary is defined by E. Punkin Center Road. The eastern boundary is defined by Ott Road, the western Boundary is defined by the Umatilla River. The southern boundary is roughly defined by W Feedville Road. There is a large area where the A line Canal and Maxwell Canal run, north of W. Feedville Road, which is outside the urban growth boundary.

Hermiston is within the Umatilla Drainage Basin and includes 2 watershed (6th Field HUC) areas. The Hermiston Ditch-Umatilla River (17070131305) consists of 5,418.8 acres and the Umatilla River (170701031306) 3,518.8 acres within the Hermiston UGB. Geologically it was within the area flooded during the Missoula floods. Hermiston Butte is a basalt dike, which shows evidence of the Missoula flood events. The soils in the area are mostly sandy loams.

The climate is arid to semi arid and the City receives approximately 9.41 inches of precipitation a year. The City receives an average of 10 inches of snow a year. The average high temperature occurs during the July/August period, and is 90.1 F. The average low occurs in January and is 23.9 F.

4.2 TOPOGRAPHY

The topography of Hermiston and its Urban Growth Boundary is nearly flat for most of the area and generally slopes west toward the Umatilla River. There are some gentle ridges and shallow valleys in places along the Umatilla River. These are probably remnants from old geological river channels. There is an upper terrace along much of the southern portion of the area. There is one basalt intrusion, which has nearly vertical side slopes. There are some steep slopes associated with the Umatilla River.

4.3 HYDROLOGY

4.3.1 Hydrologic Features of Study Area

The Oregon Water Resources Department indicates that the City of Hermiston is within the Umatilla drainage basin. The Umatilla River occupies the western border of the city. The Hermiston Irrigation District reports 90 miles of canals, ditches and drainages. There are five irrigation canals that cross within the study area: A Line Canal, Maxwell Canal, Feed Canal, I Canal, and M Canal. Associated with the irrigation canals are two drains, the Hermiston Drain and Feed Canal that carry irrigation runoff to the Umatilla River. Four of the irrigation canals are operated by the Bureau of Reclamation, as are the two drains. The fifth irrigation canal is privately owned. The normal irrigation season for the Hermiston Irrigation District is April 1st to October 1st each year.

Cold Springs Reservoir is located east of the City and receives water from the Columbia River and supplies water to the irrigation canals. The natural drainage from the reservoir drains to the northwest, north of the city. However, due to irrigation runoff there is an artificial drainage to the west of the reservoir. This drainage is called the Hermiston Drain. The Hermiston Drain splits just to the east of the study area resulting in two drainages through Hermiston. The northern drainage is the Hermiston Drain; the southern drainage is mostly culverted with sections of open channel. It carries irrigation runoff from properties to the south. Several catch basins were observed along Highland which connected to this drain.

In most areas July is not an ideal time to conduct wetland determinations as the dry season has already begun. However, since the Hermiston area averages only 9.41 inches of precipitation a year and receives approximately 3.11 inches from the 1st of the year to the start of the growing season, rainfall has minimal direct effect on wetlands. Most wetlands in the region that are not associated with rivers or streams are associated with irrigation. Most of the wetlands are directly associated to drainages, leakage from the irrigation canals or the Umatilla River. As such, the maximum hydrology in most of the wetlands occurs after the irrigation season has begun.

The soils in the area are mostly sandy loams and drain rapidly. In addition, there is a high evaporation rate in the region due to the very dry conditions. The combination of the low rainfall and the high evaporation rate suggests that rainfall has little to do with the hydrology of the wetlands.

Irrigation combined with the sandy nature of the soils appears to be the primary cause of the high water table in the Hermiston area. There are several examples which lend credence to this idea. Years ago Wetlands C and D used to be ponds. The City was considering acquiring the property for a park, but when the Bureau of Reclamation deepened a portion of the Hermiston drain, the ponds partially

dried out. The wetlands are marshes, but there isn't enough water seeping out of the drain to pond the wetlands. Another piece of evidence to support this contention is Wetland A. Prior to the start of the irrigation season this wetland had no standing water. Two weeks after the irrigation started there was standing water in the wetland (personal observations).

The riparian areas were defined as the 100 year floodplain along the Umatilla River. Along the river much of the riparian area is dominated by cottonwoods and Russian olive. Some of the 100 year floodplain is being, or was used for agriculture. Most of the agriculture appeared to consist of grazing of livestock. The riparian areas of the wetlands located above the 100 year floodplain often consisted of Russian olives or grazed grasses and is in some places desert like vegetation.

There is no riparian area associated with either of the two drains. These two drainages are managed by the Bureau of Reclamation and the City did not want to restrict the Bureau's ability to maintain these drainages. The Bureau has periodically done maintenance on these drainages to prevent localized flooding. Both drains are channelized. Sections of the Hermiston drain have been enlarged and deepened where there have been past flooding problems, and sections of the drains have been culverted. In addition, the Bureau had been repairing leaks in the irrigation canals.

4.3.2 Watershed Designation

The entire study area is within the Umatilla River basin. The Hermiston Ditch-Umatilla River watershed starts just west of Cold Springs Reservoir and extends west into the eastern half of the study area; approximately 5,418.8 acres are within the defined study area. The Umatilla River Watershed occupies the western half of the study area, comprising of approximately 3,518.8 acres.

4.3.3 Hydrologic Indicators

Wetlands, by their very name, must have water. Jurisdictional wetlands are characterized as having permanent or periodic inundation, or soil saturation for five percent or more of the growing season. Saturation occurs when capillary fringe is within the major portion of the root zone (usually within 12 inches of the surface). Areas meeting one of these criteria are considered to have wetland hydrology.

Ponding or soil saturation for five percent or more of the growing season during the growing season is direct evidence of wetland hydrology. Bare soil and dried algae are evidence that a site was previously inundated. Oxidized rhizospheres along live root channels also indicate soil saturation for five percent or more of the growing season. At each sample plot, wetland hydrology was assumed if positive indicators were present. Assumptions were made for off-site wetlands based on aerial images, topography, soils and vegetation.

4.4 SOILS

Hydric soils are soils that are saturated, inundated, or flooded long enough during the growing season to create anaerobic conditions that favor the growth of hydrophytic vegetation. Soils were mapped within the study area using the Natural Resources Conservation Services Web Soil Survey. Table 1 lists the soil series, soil name, slope, and hydric status.

Table 2. Soils Mapped Within City of Hermiston Urban Growth Boundary.

Soil Series	Soil Name	Slopes	Hydric
1B	Adkins fine sandy loam	0-5	No
2B	Adkins fine sandy loam, gravelly substratum	0-5	No
2C	Adkins fine sandy loam, gravelly substratum	5-25	No
3A	Adkins fine sandy loam	0-3	No
3C	Adkins fine sandy loam, wet	3-15	No
4B	Adkins-urban land complex	0-5	No
14B	Burbank loamy fine sand	0-5	No
27A	Esquatzel silt loam	0-3	No
70	Pits, gravel		No
74B	Quincy find sand	0-5	No
75B	Quincy loamy fine sand	0-5	No
75E	Quincy loamy fine sand	5-25	No
76B	Quincy loamy fine sand, gravelly substratum	0-5	No
78B	Quincy-Rock outcrop complex	1-20	No
85F	Rock oucrop-Xeric Torriorthents complex	10-70	No
95B	Taunton fine sandy loam	1-7	No
96B	Taunton silt loam	1-7	No
119A	Wanser loamy fine sand	0-3	Yes
122B	Winchester sand	0-5	No
124B	Winchester-urban land complex	0-5	No
126A	Xerofluvents	0-3	No

4.5 VEGETATION

4.5.1 Overview

Hermiston is located within an arid to semi arid climate. The topography of Hermiston is generally flat and generally slopes west toward the Umatilla River. A large portion of Hermiston is urban development including residential housing and commercial properties. Undeveloped areas include unused open space and agricultural land. Due to limited on-site access vegetation communities were based predominantly off aerial photographs. Open space and agricultural properties were dominated by herbaceous species. Russian olive was predominant among many of the wetland associated sites. Forested areas were present surrounding the Umatilla River.

4.5.2 Vegetation Communities

Two wetland vegetation communities based on Cowardin classifications, including Palustrine Forested and Palustrine emergent wetlands, were documented within the study area. These classifications are summarized below.

- **Palustrine Forested Wetlands (PFO)**
Forested wetlands were predominantly associated with the Hermiston River. The predominant tree cover was cottonwood located in narrow bands along reaches of the river. Russian olives tended to occur above the cottonwood band of trees. PFO wetlands can provide high quality habitat for wildlife.
- **Palustrine Emergent Wetlands (PEM)**
Emergent wetlands are characterized by herbaceous vegetation including cattails and grasses. Hermiston is an arid to semi-arid environment with a large portion within the UGB dominated by agricultural practices. PEM wetlands identified were often associated with agricultural irrigated fields or irrigation canals and were present as wet meadows.

Riparian was absent within the Hermiston UGB. No streams were identified outside of the Umatilla River, irrigation canals and drains.

4.5.3 Wetland and Upland Indicator Species

Plants specifically adapted for life under saturated or anaerobic conditions are commonly referred to as hydrophytic vegetation. The U.S. Fish and Wildlife Service in cooperation with the National and Regional Interagency Review Panels publish regional lists estimating the probability of plant species' occurrence in wetlands. Each plant species is given an *indicator status* which represents the likelihood that it will be found in a wetland. Plant communities dominated by OBL, FACW, or FAC species indicate the presence of wetland vegetation. Categories are defined in Table 2.

Table 3. Definitions of Indicator Status

Indicator Symbol	Definition
OBL	Obligate. Species that occur in wetlands under natural conditions with an estimated probability of greater than 99%.
FACW	Facultative wetland. Species that usually occur in wetlands (estimated probably 67-99%), but occasionally are found in non-wetlands.
FAC	Facultative. Species that are equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%).
FACU	Facultative upland. Species that usually occur in non-wetlands (estimated probability 67-99%), but occasionally are found in wetlands.
UPL	Upland. Species that occur in non-wetlands under natural conditions with an estimated probability of greater than 99%.
NI	No indicator. Species for which insufficient information was available to determine an indicator status.

Sources: Federal Interagency Committee for Wetland Delineation, 1989. Environmental Laboratory, 1987. Reed, 1998.

5.0 LWI DISCUSSIONS AND CONCLUSIONS

5.1 U.S. FISH & WILDLIFE SERVICE NATIONAL WETLAND INVENTORY

Beginning in the 1970's the U.S. Fish & Wildlife Service has been producing wetland maps and geospatial wetland data to provide to the public for the purpose of providing information regarding the distribution of wetlands and to aid in wetland conservation efforts. An overlay of the NWI was placed on field maps to be referenced throughout field investigations.

5.2 LOCAL WETLAND INVENTORY RESULTS

5.2.1 Wetland Acreage and Distribution

A total of 22 wetlands were identified during the LWI with a total of 120.30 acres. The Hermiston Ditch-Umatilla River watershed had 48 percent of the wetlands within the study area. The Umatilla River watershed contained the remaining 52 percent. See Figure 3 Local Wetland Inventory Maps.

5.2.2 Wetland Classification

Wetlands were classified using the Cowardin system. Palustrine Forested (PFO) and Palustrine Emergent Wetlands (PEM) were identified within the project boundaries. Table 4 is a summary of wetland classifications for the LWI; this is further broken down into classifications for each wetland as necessary in Table 5.

Table 4. Total area of Hermiston wetlands by Cowardin Classification.

Wetland Classification	Area (acres)	Percent
Palustrine Forested Wetland (PFO)	72.41	60
Palustrine Scrub/shrub Wetland (PSS)	N/A	N/A
Palustrine Emergent Wetland (PEM)	46.50	39
Open Water	1.37	1
Total	120.30	100

Table 5. Cowardin classification of Hermiston Wetlands.

Wetland	USFWS Wetland Classification				Total Acreage
	PFO	PSS	PEM	OW	
A			2.61		2.61
B			6.11		6.11
C			12.77		12.77
D	2.02		5.75		7.77
E1	11.51		1.29		12.8
E2			2.12		2.12
F1	14.68				14.68
F2	26.07		6.37		32.44

G			5.16		5.16
I	3.54				3.54
K			1.44		1.44
L	0.96				0.96
O	1.04				1.04
Q	1.01				1.01
R	0.70				0.70
S	4.23				4.23
T	0.97		0.76		1.73
U			1.11		1.11
W	0.89				0.89
X	2.98				2.98
Y	0.81			1.37	2.18
Z	1.00		1.01		2.01
Total	72.41	0	46.5	1.37	120.30

5.3 OREGON FRESHWATER ASSESSMENT METHODOLOGY RESULTS

5.3.1 Wetlands of Special Interest for Protection

As part of the OFWAM, each identified wetland was analyzed to determine if it was an uncommon wetland, under a management plan or protected by regulatory rules or statutes. A series of ten questions were applied to each wetland to evaluate if the wetland was determined to be a wetland of special interest. Any questions with an answer of “yes” indicated the wetland to be placed under the special interests category. Wetlands E1, F2, Q, R, S, T U, X and Z have been identified as wetlands of special interest for protection due to their close vicinity with the Umatilla River.

5.3.2 Wetland Quality Assessment

As per section 2.3, the OFWAM was used to assess 6 functions and 3 conditions regarding the quality of each individually identified wetland. The results for each of the wetlands can be found in Appendix E.

To compare results of the OFWAM assessment Table 6 has been created assigning a numerical value to each of the assessment criteria. Number 1 was assigned to wetlands with intact or diverse function or conditions; a number 2 identifies impacted/degraded moderate potential for functions or conditions. Number 3 represents the lowest result of lost/not present or not appropriate for wetland functions or conditions. A number of wetlands had functions or conditions that were not applicable such as fish habitat in areas with no likelihood of containing fish. Additionally, site access was not available for all identified wetlands and in these cases certain qualities of the assessment were not applicable. Table 7 shows the results comparing all wetlands and their assigned assessment values.

Table 6. Oregon Freshwater Wetland Assessment Methodology Numerical Ranking

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

Table 7. OFWAM Numerical Ranking Results for Hermiston Local Wetlands Inventory.

Wetland Code	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Sensitivity to Impact	Enhancement Potential	Education	Recreation	Aesthetic Quality	Size
A	2	N/A	2	2	2	1	3	3	N/A	2.61
B	2	N/A	2	2	2	1	3	3	N/A	6.11
C	2	N/A	2	2	2	1	3	3	1	12.77
D	2	N/A	2	2	2	1	3	3	1	7.77
E1	2	2	2	1	1	1	3	3	2	12.8
E2	2	N/A	2	3	1	1	3	3	2	2.12
F1	2	N/A	2	2	1	2	3	3	2	14.68
F2	2	2	2	1	1	1	1	1	1	32.37
G	2	N/A	2	2	2	2	3	3	1	5.16
I	2	N/A	2	2	2	2	3	3	2	3.54
K	2	N/A	2	2	2	1	3	3	2	1.44
L	2	N/A	2	2	2	1	3	3	2	0.96
O	2	N/A	2	2	2	1	3	3	2	1.04
R	2	2	2	2	2	1	3	2	2	0.7
S	2	2	2	2	1	1	3	2	2	4.23
T	2	2	2	1	1	1	3	2	1	1.73
U	2	2	2	2	2	1	3	2	2	1.11
W	2	N/A	2	1	2	1	3	3	2	0.89
X	2	N/A	2	1	2	1	3	3	2	2.99
Y	2	2	2	1	2	1	3	3	2	2.18
Q	2	2	2	2	2	1	3	3	3	1.01
Z	2	2	2	2	2	2	1	1	1	2.02

All 22 wetlands identified during the LWI provided habitat for some wildlife species. The majority of the wetlands had one or more Cowardin class, was adjacent open space, had adequate buffers, had surface water connection or was within a 3 mile radius of other wetlands.

Fish habitat function was not applicable (N/A) for 13 of the 22 (59%) wetlands due to the lack of water or connection to waters suitable for fish. The remaining 9 (41%) wetlands that were assessed for fish habitat were located in the western portion of the Hermiston LWI within the vicinity of the Umatilla River (E1, F2, R, S, T, U, Y, Q and Z). All wetlands identified as possibly having fish habitat were deemed impacted or degraded.

Water quality for all assessed wetlands was determined to be impacted or degraded. In large part this is due to irrigation drains or water-quality limited associations. The drains receive irrigation runoff, which comes from irrigated farm fields, or livestock pastures. As such the water is anticipated to be nutrient rich, and have warm temperatures.

Hydrologic control for 6 (27%) (E1, F2, T, W, X, Y) of the wetlands was intact, leaving the remaining 15 (73%) of wetlands with impacted or degraded hydrologic control. Only wetland E2 had lost its hydrologic control.

Only 2 (0.09%) (F2, Z) of the wetlands provided educational uses. These properties were open to the public. The remaining 20 (0.91%) of the wetlands were not appropriate for educational use. The majorities of the wetlands (73%) were not appropriate or did not provide recreational opportunity due to lack of public access or safety concerns. Four of the wetlands (18%) (R,S, T, U) provided some recreational opportunity, and 2 (F2, Z) wetlands located on public land provided recreational opportunities.

Aesthetic quality in large part was determined by the presence of noise or roads within the vicinity. Two wetlands were not applicable as there was no viewing area to observe from (A, B). Additionally, some speculation was made regarding aesthetic quality based on aerial imagery.

6.0 SIGNIFICANT WETLAND DETERMINATION

6.1 LOCALLY SIGNIFICANT WETLANDS CRITERIA

The Department of Land Conservation and Development (DLCDD) and the Department of State Lands (DSL) developed specific requirements to meet statewide planning goals 5. Goal 5 addresses the protection of natural resources, scenic and historic areas, and open spaces (OAR 660-015-0000(5)). Resources include riparian corridors, wetlands, wildlife habitat, rivers, trails, and resource areas. Cities must develop and adopt a Local Wetland Inventory to identify and assess the function and conditions of wetlands. OAR 141-086-0300 directs procedures for determining if wetlands meet the requirements to be "significant wetlands." Table 8 describes criteria that must be met to be a "significant wetland."

Table 8. Criteria for Determining Locally Significant Wetlands

Locally Significant Wetland Criteria (ORS 141-086-0350)		
<i>Exclusions:</i> Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
		YES NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	
b.	Active surface mining or active log ponds	
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR 141-086-0350 1(b)	
Exclusion criteria satisfied?		
<i>Mandatory Locally Significant Criteria:</i> A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
		YES NO
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	
2	Is the wetland's <i>fish habitat function intact</i> ?	
3	Is the wetland's <i>water quality function intact</i> ?	
4	Is the wetland's <i>hydrologic control function intact</i> ?	
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	
6	Does the wetland contain rare plant communities?	
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	
Mandatory Locally Significant Wetland criteria satisfied?		
<i>Optional Local Significant Wetland Criteria:</i> Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
		YES NO
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	
Optional Locally Significant Wetland criteria satisfied?		

6.2 APPLYING SIGNIFICANT WETLAND CRITERIA TO THE LWI STUDY AREA

All wetlands were summarized and analyzed using the OFWAM and finally the criteria for locally significant wetlands were applied (Appendix F). Table 9 displays the 9 out of 22 (41 %) wetlands that fit the criteria for significant wetlands.

Table 9. Locally Significant Wetlands (LSW) in Hermiston LWI

E1	F2	Q
R	S	T
U	X	Z

7.0 PROJECT SUMMARY

In 2011 Schott and Associates was part of a team led by Johnson Reid LLC to conduct a Local Wetland Inventory as part of an update to the Hermiston Comprehensive Plans. The purpose of the inventory was to identify and assess the functions of wetlands to meet statewide Goal 5 and other planning responsibilities. Objectives of the study were to provide current mapping of wetland boundaries at a scale suitable for planning, determine whether additional wetlands not mapped on the NWI are present, calculate the area of wetlands and assess wetland functions and values.

Hermiston is located in northeastern Oregon in the northwest corner of Umatilla County, south of the Columbia River and adjacently east of the Umatilla River, with a drainage generally west to the Umatilla River. The Hermiston study area was comprised of approximately 8,980.4 acres of land. Wetlands were identified according to criteria outlined in the *1987 Corps of Engineers Wetlands Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*.

Field work was conducted in July 2012, identifying 22 wetlands comprising of approximately 120.30 acres identified by on-site and off-site investigations. Wetlands were mapped according to the Cowardin classification. Two types were identified within the study area boundaries: palustrine emergent (39%) and palustrine forest wetlands (60%). Additionally, 1 percent was documented as open water. Water regime varied and included groundwater fed semi-permanently flooded/saturated wetlands. Most wetlands within the study area were associated with leakage from irrigation systems within the city and proximity to the Umatilla River.

Wetland quality was evaluated using the *Oregon Freshwater Assessment Methodology*. All 22 provided habitat for some wildlife species. Only 9 (41%) (E1, F2, R, S, T, U, Y, Q, Z) of the wetlands were assessed for fish habitat due to their close proximity of the Umatilla River. All wetlands identified as possibly having fish habitat were deemed impacted or degraded. Water quality for all assessed wetlands was determined to be impacted or degraded. In large part this is due to irrigation drains or water-quality limited associations.

Hydrologic control for 6 (27%) (E1, F2, T, W, X, Y) of the wetlands was intact, leaving the remaining 15 (73%) of wetlands with impacted or degraded hydrologic control. Only wetland E2 had lost its hydrologic control. The majority of the wetlands (90%) were not appropriate for educational use or recreational opportunity (73%) due to the lack of public access or safety concerns. Additionally, 9 of the 22 wetlands met the criteria for “wetlands of special interest for protection” under the OFWAM assessment (E1, F2, Q, R, S, T, U, X, and Z).

Wetlands were further evaluated to determine if they met criteria to be considered a Locally Significant Wetland. A total of 22 wetlands were identified and 9 (41%) (Same as “wetlands of special interest or protection”) of the wetlands were determined to be Locally Significant Wetlands.

8.0 REFERENCES

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APPENDIX A: DEFINITIONS

These definitions are provided in OAR 141-086-200 to help define terms used within the Hermiston Local Wetland Inventory.

Cowardin Wetland Classification

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).

DSL or "Department"

Means the Oregon Department of State Lands.

Georeferenced

Linking geographic data to known coordinates on the surface of the earth.

"GIS" or "Geographic Information System"

A system of hardware, software and data storage that allows for the analysis and display of information that has been geographically referenced.

Hydrogeomorphic (HGM) Wetland Classification

"HGM class and 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.

Hydrophytic Vegetation

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

Indicator

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

Inventory

A systematic survey of an area to identify, classify and map the approximate boundaries of wetlands, and includes the supporting documentation required by these rules.

Mapping

Representing the identified wetlands and their approximate boundaries on a map.

Offsite Determination

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

Other Waters

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

Probable Wetland or 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.

Sample Plot

A specific area on the ground where soils, vegetation and hydrology data are recorded on a field data form per OAR 141-90-0035(14) in order to make a wetland determination.

Statewide Wetlands Inventory or 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 the Department.

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.

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.

Wetlands

Areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (ORS 196.800(16)).

Wetland Delineation Report

A written document that contains the methods, data, conclusions and maps used to determine if wetlands and/or other waters of the state are present on a land parcel and, if so, describes and maps their location and geographic extent. A wetland determination report documenting wetland presence or absence is included within this definition (OAR 141-090 et seq.).

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 (OAR 141-090 et seq.).

APPENDIX B: FIGURES

FIGURE 1. LOCATION MAP

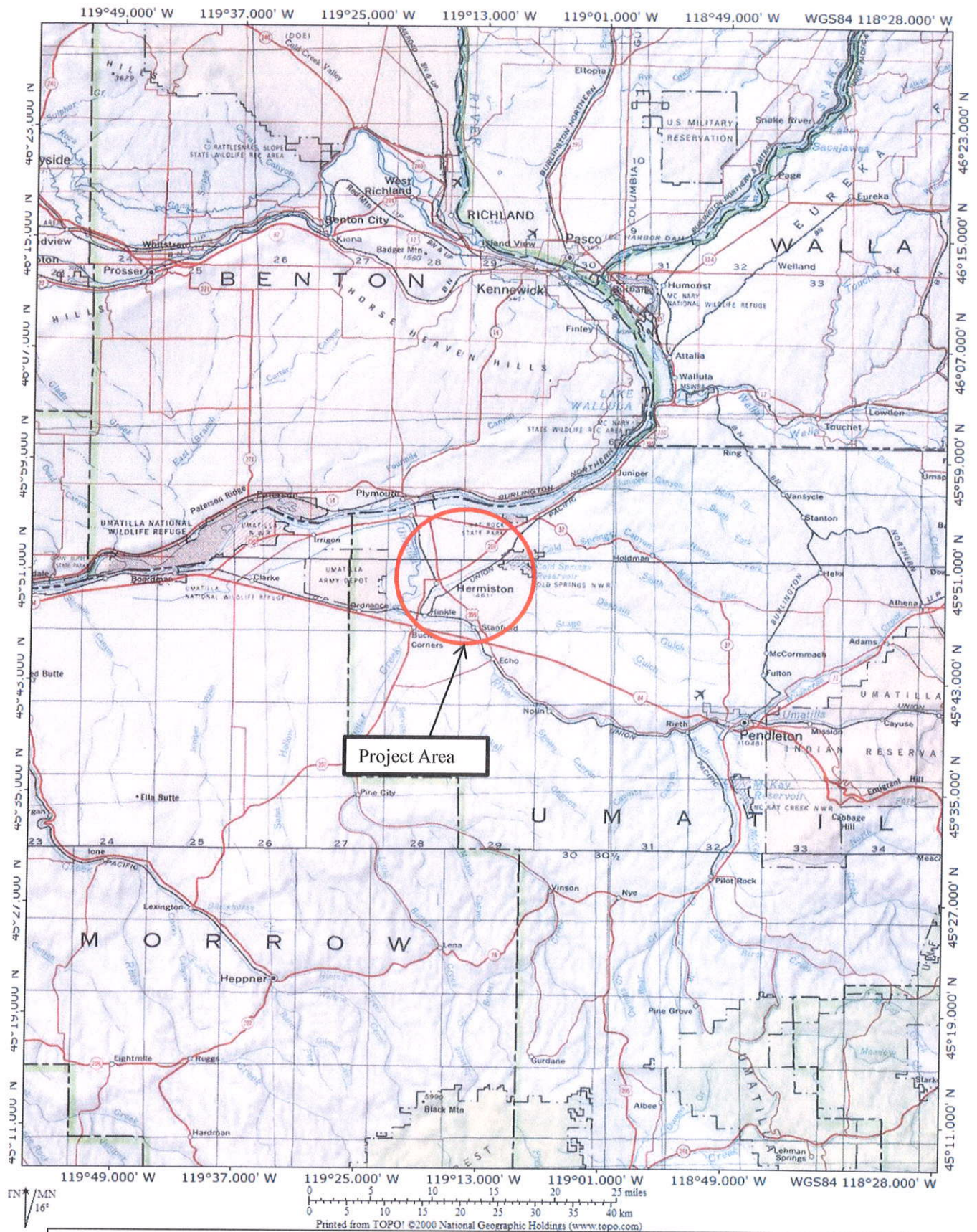


FIGURE 1. LOCATION MAP
 Hermiston Local Wetland Inventory
 S&A# 2231

Schott & Associates
 P.O. Box 589
 Aurora, OR. 97002
 503.678.6007

FIGURE 2. FIELD MAPS

FIGURE 3. LOCAL WETLAND INVENTORY

APPENDIX C: WETLAND CHARACTERIZATION SHEETS

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: A

Size (acres): 2.61 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM
 HGM Class(es): DCNP Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 2CD
 Tax Lots: Sec. 2CD TL #100
 Other: North E. Elm Ave., west of NE 4th St.
 Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Wanser loamy fine sand, 0 to 3 percent slopes
 Hydrologic Source: Seasonal high ground water table. The water table is probably high due to leakage from the Hermiston Ditch, which is a little south of the wetland.

Vegetation

Off-site Determination. Wetland appeared to be dominated by grasses and grass-like species.

Comments

Current Land Use: This was an off-site determination, viewed from Tax Lot #200. The land use is open space, not being used for agricultural purposes. The wetland appeared to be in a depression. The hydrology most likely from a high water table due to leakage from the Hermiston Ditch, which is a little south of the wetland. The wetland is isolated. There is no apparent inlet, or outlet.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/sbrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: B

Size (acres): 6.11 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM
 HGM Class(es): DCNP Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 2D
 Tax Lots: Sec. 2D TL #400

Other: South of E. Theater Lane, and west of Vista Park Mobile Home Estate

Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Wanser loamy fine sand, 0 to 3 percent slopes

Hydrologic Source: The hydrology is probably due to a high water table. Which may or may not be related to irrigation. The City's map shows the M canal being just north of the wetland. The canal is no longer present, and has either been piped or filled.

Vegetation

Off-site Determination. There was no view of this wetland. Appears to be dominated by emergent species.

Comments

Current Land Use: This was an off-site determination. There was no view of this wetland, it looks to be open space. Based on aerial photographs the wetland appears to be a depression. The wetland appears isolated. There is no apparent inlet, or outlet.

Associated DSL WD Files: WD2008-0255

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: C

Size (acres): 12.77 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM
 HGM Class(es): DCNP Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 11
 Tax Lots: Sec. 2D TL #500, 505
 Other: South of E Elm Avenue, between NE 4th Street and NE 10th Street

Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Wanser loamy fine sand, 0 to 3 percent slopes

Hydrologic Source: The hydrology is probably due leakage from the Hermiston drain. A portion of the drain has been piped by the Bureau of Reclamation, which has caused the wetland to be drier. Prior to the piping the wetland was a pond.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive	<i>Typha latifolia</i>	Broadleaf cattail

Comments

Current Land Use:
 Off-site Determination. This wetland is visible from E Elm Avenue. It is dominated by broadleaf cattail . Russian olive are around much of the edge of the wetland. Russian olives are a riparian species, rarely found growing in true wetlands. This wetland used to be significantly wetter. However, a portion of the Hermiston drain was piped causing the wetland to become drier. Land use appears to be open space.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
R1=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: D

Size (acres): 7.77 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM, PFO
 HGM Class(es): DCNP Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 11
 Tax Lots: Sec. 2D TL #500, 505
 Other: Wetland just south of Wetland C. South of E Elm Avenue, between NE 4th Street and NE 10th Street
 Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Wanser loamy fine sand, 0 to 3 percent slopes
 Hydrologic Source: The hydrology is probably due leakage from the Hermiston drain. A portion of the drain has been piped, which has caused the wetland to be drier.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive	<i>Typha latifolia</i>	Broadleaf cattail
<i>Populus balsimifera</i>	Cottonwood		

Comments

Current Land Use:
 Off-site Determination. This wetland is barely visible from E Elm Avenue. The wetland is just south of Wetland C. It is dominated by broadleaf cattail. Russian olive and a few cottonwood are around much of the edge of the wetland. Russian olives are a riparian species, rarely found growing in true wetlands. This wetland used to be significantly wetter. However, a portion of the Hermiston drain was piped causing the wetland to become drier. Appears to be open space.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM= estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: E1

Size (acres): 12.8 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO, PEM
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: 7, 8, 27-32

Location

Legal: T4N, R28E Sec. 4A0
 Tax Lots: TL# 400, 300, 500, 600, 1600, 1700, 800
 Other: North of Mconnell Ln and NW 15th St. corner. West of NW 11th St. East of Umatilla River. Lower end of Hermiston drain.
 Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Quincy loamy fine sand, 5-25 % slopes, Winchester sand, 0-6 % slopes
 Hydrologic Source: Wetland is located at lower end of Hermiston Drain, and along Umatilla River. Hydrology associated with drain and river. The drain portion stays wet all summer, has a couple inches of water over most of the wetland. River portion is associated with higher river flows and possible seeps and springs.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive	<i>Typha latifolia</i>	Broadleaf cattail
<i>Populus balsimifera</i>	Cottonwood		Bulrush
	Salix	<i>Juncus balticus</i>	Baltic Rush

Comments **LOCALLY SIGNIFICANT WETLANDS**
Wetland of Special Interest

Current Land Use:
 The portion along the river is within the 100 year flood plain. Land is owned by City of Hermiston. Open Space.

Associated DSL WD Files: WD2009-0334

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RJ=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: E2

Size (acres): 2.12 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 12A
 Tax Lots: Sec. 12A TL #702, 704, 1403, 1500, 1600, 1700, 1800, 1900, 1902, 2000, 2001, 2200
 Other: East end of Hermiston Drain, where it enters Hermiston's urban growth boundary. West of Ott Road.
 Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Wanser loamy fine sand, 0 to 3 percent slopes
 Hydrologic Source: Hydrology from the Hermiston Drain going through middle of wetland. The wetland is a low area adjacent to drain.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive	<i>Typha latifolia</i>	Broadleaf cattail

Comments

Current Land Use:
 Off-site Determination. This wetland was viewed from Ott Road. Visible portion was dominated by broadleaf cattail. The north side was graded into the yard area for a house. The south side was bordered by Russian olive. Since the Hermiston Drain is a drain for irrigation water this wetland was probably the wettest during the irrigation months of April through October. Bureau of Reclamation is responsible for drain maintenance.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: F1

Size (acres): 14.68 Date(es) of Fieldwork: 7/10/2012

Cowardin Class(es): PFO

HGM Class(es): RFT Investigators: MRS

Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 12A

Tax Lots: Sec. 12A TL # 300, 302, 1300, 1304, 1400

Other: East of S. Townsend Road where East Main St. T's into S. Townsend Rd.

Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Adkins fine sandy loam, wet, 3 to 15 percent slopes

Hydrologic Source: Wetland is within an irrigated pasture, appears to be associated with the Hermiston Drain system.

Vegetation

Trees/Shrubs

Herbs

Scientific

Common Name

Scientific

Common Name

Elaeagnus angustolia

Russian Olive

Comments

Current Land Use:

Off-site Determination. This wetland was partially viewed from S. Townsend Rd. Much of the mapped wetland may not be jurisdictional wetland, due to association with a drainage ditch. The spectral image on aerial photographs indicates it's a wetland, but irrigation produces essentially the same image as a true wetland.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
R1=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: F2

Size (acres): 32.37 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO, PEM
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: 45, 46, 9-12, 57, 59

Location

Legal: T4N, R28E Sec. B000
 Tax Lots: TL# 8000, 8400, 8701, 9402, 9300, 8800, 8900, 9000, 1500
 Other: North of CO 1238 Rd, west of NW 13th St., East of Umatilla River
 Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Xerofluvents, 0-3 percent slopes.
 Hydrologic Source: Hermiston drain supplies much of the water for the wetland complex. The drain forks into two swales which drain to the river. Irrigation has been stopped to much of the area, changing hydrology patterns.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive	<i>Typha latifolia</i>	Broadleaf cattail
<i>Populus balsimifera</i>	Cottonwood		Bulrush
		<i>Juncus balticus</i>	Baltic Rush

Comments **LOCALLY SIGNIFICANT WETLANDS**
Wetland of Special Interest

Current Land Use:
 Wetland complex has changed due to irrigation being stopped. Wetland has become smaller. Irrigation ditches along top of low ridges appear to have been dry for the last couple summers. They are shallow swales between ridges, vegetation was wetland plants. In areas some plants had died due to lack of water. Appeared to be significantly less hydrology entering the swale than historically. This was based on conditions we observed and plant species within the swale. Property owned by Bureau of Reclamation.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	PGW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EPR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RJ=River impounding	LJFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: G

Size (acres): 5.16 Date(es) of Fieldwork: 7/10/2012

Cowardin Class(es): PEM

HGM Class(es): Slope Investigators: MRS

Data Sheet Numbers: 1, 2, 3, 4, 5, 6

Location

Legal: T4N, R28E, Sec. 12D

Tax Lots: TL # 190

Other: Avril Lane

Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Adkins fine sandy loam, wet, 3 to 15 percent slopes

Hydrologic Source: This wetland forms immediately below the A-line Canal. Hydrology is most likely associated with the canal and irrigation. If the canal was lined, the wetland might become upland. Property owner stated a spring is on the property that feeds part of wetland. Spring may be canal associated as well.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
		<i>Cynodon dactylon</i>	Bermuda Grass
		<i>Juncus articus</i>	Artic Rush
		<i>Agrostis stolonifera</i>	creeping Bent grass
		<i>Trifolium repens</i>	White clover
		<i>Holcus mollis</i>	Creeping soft grass

Comments

Current Land Use:

Wetland forms immediately below the A-line Canal. Hydrology most likely associated with the canal and irrigation. However, the land owner mentioned a spring on the property, that fed part of the wetland. This could also be canal associated. The upper boundary of a portion of the wetland follows an irrigation ditch, it is essentially a straight line. Another irrigation ditch parallels the upper ditch. There are two small ponds on the property. They appears to have been constructed for cattle on the site. Cattle have trampled the irrigation ditches, causing spill over into a large area. Maintenance of irrigation ditches would probably reduce the size of the wetland.

Associated DSL WD Files:

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

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: I

Size (acres): 3.54 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO
 HGM Class(es): Slope Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 2CA
 Tax Lots: TL# 6400
 Other: Adjacent to the Maxwell Canal, west of Townsend Road and south of Hurlburt Avenue. Wetland was viewed from Townsend Road.
 Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Adkins fine sandy loam, wet, 3 to 15 percent slopes
 Hydrologic Source: Due to close proximity of the Maxwell Canal, the hydrology for this wetland is probably due to leakage from the canal.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive	<i>Typha latifolia</i>	Broadleaf cattail

Comments

Current Land Use:
 Wetland was viewed from Townsend Road. A small portion of the wetland that was visible was dominated by cattails. Russian olives were adjacent to the cattails. Due to close proximity of the Maxwell Canal, the hydrology of the wetland is probably from leakage from the canal. Appears to be open space.

Associated DSL WD Files:

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

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: K

Size (acres): 1.44 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM
 HGM Class(es): DCNP Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 13
 Tax Lots: TL# 100, 200

Other: Between the airport and the A Line Canal

Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Adkins fine sandy loam, 0 to 5 percent slopes
 Quincy loamy fine sand, 5-25 percent slopes
 Hydrologic Source: Wetland appears to be created from leakage from US Feed Canal. No visible connection to A Line Canal. No known connection to other water bodies.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive		

Comments

Current Land Use:
 No visible access point for this wetland. Spectral images were used to identify features. Appears to be entirely man-made. It is located in the middle of an agricultural field.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFI=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: L

Size (acres): 0.96 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO
 HGM Class(es): DCP Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 14DO
 Tax Lots: TL# Appears to be in a Railroad R/W
 Other: North of US Feed Canal and west of HWY 395
 Watershed name: Hermiston Ditch-Umatilla River (170701031305)

Soils

Mapped Series: Adkins fine sandy loam, gravelly substratum 0 to 5 percent slopes
 Hydrologic Source: Irrigation runoff, or leakage from canal.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name

Comments

Current Land Use:
 No visible access/viewing point for this wetland. Wetland appears to be manmade. Formed at the toe of the railroad ballast. Small and isolated forested wetland.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: O

Size (acres): 1.04 Date(es) of Fieldwork: 7/10/2012

Cowardin Class(es): PFO

HGM Class(es): DCNP Investigators: MRS

Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec. 15

Tax Lots: TL# 200

Other: North of Maxwell Canal, east of where canal crosses the railroad.

Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Adkins fine sandy loam, gravelly substratum 0 to 5 percent slopes

Hydologic Source: Appears to be associated with irrigation canal.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Populus balsimifera</i>	Cottonwoods		

Comments

Current Land Use:

No visible access/viewing point for this wetland. Apparent wetland consists of a narrow band of cottonwoods. The hydrology appears to be associated with the irrigation canal. This wetland may prove to be a false positive spectral image, and not actually be a wetland. Land use appears to be open space or agriculture.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Emayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Finge Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: Q

Size (acres): 1.01 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: 21, 22

Location

Legal: T4N, R28E, Sec 1600
 Tax Lots: TL # 900, 1800
 Other: Minnehaha Spring, Just north of Minnehaha Rd, south of Umatilla River.
 Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Quincy loamy fine sand, 0 to 25 percent slopes.
 Hydrologic Source: Perennial flow from spring. Wetland runs from where spring emerges to where it connects to the Umatilla River.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
		<i>Typha latifolia</i>	Broadleaf cattail

Comments *LOCALLY SIGNIFICANT WETLANDS
Wetland of Special Interest*

Current Land Use:
 Property owned by the city of Hermiston. Land is open space.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: R

Size (acres): 0.7 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec 16
 Tax Lots: TL # 3000
 Other: Southern bank of Umatilla River. North of Minnehaha Road, along western UGB boundary.
 Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Adkins fine sandy loam, gravelly substratum 0 to 5 percent slopes
 Hydrologic Source: Riverine wetland located within the floodplain of the Umatilla River.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Populus balsimifera</i>	Cottonwoods		

Comments ***LOCALLY SIGNIFICANT WETLANDS
Wetland of Special Interest***

Current Land Use:
 No visible access/viewing point for this wetland. Apparent wetland consists of a narrow band of cottonwoods. Wetland is Riverine and located within the floodplain of the Umatilla River. Land is open space.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: S

Size (acres): 4.23 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E, Sec 16D
 Tax Lots: TL # 1900

Other: Eastern bank of Umatilla River. West of Rivercrest Ln.

Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Quincy Loamy Fine Sand, 5-25 percent slopes

Hydrologic Source: Riverine wetland located within the floodplain of the Umatilla River. Hydrology most likely from side slope seeps.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Populus balsimifera</i>	Cottonwoods		

Comments *LOCALLY SIGNIFICANT WETLANDS
Wetland of Special Interest*

Current Land Use:
 No visible access/viewing point for this wetland. Apparent wetland consists of a narrow band of cottonwoods. Wetland is Riverine and located within the floodplain of the Umatilla River. Land appears to be open space.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: T

Size (acres): 1.73 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO, PEM
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: Off-site, had access to adjoining property. SP 23.

Location

Legal: T4N, R28E, Sec 16BA
 Tax Lots: TL # 3000, 1300, 1401, 1400, 1500, 1600
 Other: Eastern bank of Umatilla River. South of W. Alleluia Ave.
 Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Quincy Loamy Fine Sand, 5-25 percent slopes
 Hydrologic Source: Riverine wetland located within the floodplain of the Umatilla River. A portion of wetland could be viewed from adjoining property. Water visible suggesting seeps.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Populus balsimifera</i>	Cottonwoods		

Comments ***LOCALLY SIGNIFICANT WETLANDS
Wetland of Special Interest***

Current Land Use:
 Narrow band of cottonwoods. A portion of wetland could be viewed from an adjoining property, appeared to be water in the wetland. Appears to be open space.

- Associated DSL WD Files:
- | | | | |
|--|---------------------------------|-----------------------------------|---------------------------|
| COWARDIN CODES: | E2FO=estuarine forested | E2SS=estuarine scrub/shrub | E2EM=estuarine emergent |
| PFO=palustrine forested | PSS=palustrine scrub/shrub | PEM=Palustrine emergent | POW=palustrine open water |
| HGM CODES: | EFB=Estuarine Fringe Embayment | EFR=Estuarine Fringe Riverine | RFT=Riverine Flow Through |
| RI=River impounding | LFH=Lacustrine Fringe Headwater | LFV=Lacustrine Fringe Valley | DB=Depressional Bog |
| DA=Depressional Alkaline | DO=Depressional outflow | DCP=Depressional Closed Permanent | |
| DCNP=Depressional Closed Non-Permanent | | | |

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: U

Size (acres): 1.11 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E Sec.B000
 Tax Lots: TL # 7300

Other: Eastern bank of Umatilla River. Northwest of Riverfront Park.

Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Xerofluvents, 0-3 percent slopes.

Hydologic Source: Riverine wetland located within the floodplain of the Umatilla River.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Populus balsimifera</i>	Cottonwoods		

**LOCALLY SIGNIFICANT WETLANDS
Wetland of Special Interest**

Comments
 Current Land Use:
 No visible access/viewing point for this wetland. Apparent wetland consists of a narrow band of cottonwoods. Wetland is Riverine and located within the floodplain of the Umatilla River. Appears to be open space via aerials.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Emayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Finge Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: W

Size (acres): 0.89 Date(es) of Fieldwork: 7/10/2012

Cowardin Class(es): PFO

HGM Class(es): DCNP Investigators: MRS

Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E Sec.B000

Tax Lots: TL # 1505

Other: West of W Elm Ave, east of Umatilla River

Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Xerofluvents, 0-3 percent slopes.

Hydrologic Source: Hydrology appears to be from irrigation runoff.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive		

Comments

Current Land Use:

No visible access/viewing point for this wetland. Aerial photographs were referenced. Area appears to be dominated by Russian olives. Area appears to be open space via aerial images.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: X

Size (acres): 2.98 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E Sec.B000
 Tax Lots: TL # 1503, 1504

Other: Northwest of W Elm Ave, east of Umatilla River. North of Wetland W.

Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Xerofluvents, 0-3 percent slopes.

Hydrologic Source: Hydrology appears to be from irrigation runoff.

Vegetation

Trees/Shrubs

Herbs

Scientific

Common Name

Scientific

Common Name

Elaeagnus angustolia

Russian Olive

Comments

**LOCALLY SIGNIFICANT WETLANDS
Wetland of Special Interest**

Current Land Use:

No visible access/viewing point for this wetland. Aerial photographs were referenced. Area appears to be dominated by Russian olives and open space.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: Y

Size (acres): 2.18 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PFO, OW
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: Off-site

Location

Legal: T4N, R28E Sec.4D0, 4A0
 Tax Lots: Sec. 4D0 TL# 1902, 1904, 1900 Sec. 4A0 TL# 1800, 1900
 Other: West of the terminus of McConnel Lane, west of NW 15th St. East of Umatilla River
 Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Xerofluvents, 0-3 percent slopes.
 Hydrologic Source: Hydrology appears to be from irrigation runoff. Pond appears to be a dugout livestock pond. Drainage from pond appears to be lined by Russian olives.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive		

Comments

Current Land Use:
 No visible access/viewing point for this wetland. Aerial photographs were referenced. Area appears to be dominated by Russian olives. Appears to be open or livestock space via aerials.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Embayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LJV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

**Hermiston Local Wetland Inventory
Wetland Characterization Sheet**

Wetland Mapping Code: Z

Size (acres): 2.01 Date(es) of Fieldwork: 7/10/2012
 Cowardin Class(es): PEM, PFO
 HGM Class(es): RFT Investigators: MRS
 Data Sheet Numbers: 13, 14, 15, 47

Location

Legal: T4N, R28E, Sec B000
 Tax Lots: TL # 8000, 8701
 Other: North of corner to SW 23rd St and Co 1238 Rd. South of Hermiston River.
 Northwest of wetland F2.
 Watershed name: Umatilla River (170701031306)

Soils

Mapped Series: Quincy loamy fine sand, 0 to 25 percent slopes.
 Hydrologic Source: Wetland recently formed after Bureau of Reclamation purposely broke a hole in an irrigation siphon pipe. When irrigation water is in the pipe it flows out of the break and down the swale that forms the wetland.

Vegetation

Trees/Shrubs		Herbs	
Scientific	Common Name	Scientific	Common Name
<i>Elaeagnus angustolia</i>	Russian Olive	<i>Typha latifolia</i>	Broadleaf cattail
		<i>Phalaris arundinacea</i>	Reed Canary Grass

Comments	LOCALLY SIGNIFICANT WETLAND Wetland of Special Interest
-----------------	--

Current Land Use:
 Property of Bureau of Reclamation, area appears to be open space.

Associated DSL WD Files:

COWARDIN CODES:	E2FO=estuarine forested	E2SS=estuarine scrub/shrub	E2EM=estuarine emergent
PFO=palustrine forested	PSS=palustrine scrub/shrub	PEM=Palustrine emergent	POW=palustrine open water
HGM CODES:	EFB=Estuarine Fringe Emayment	EFR=Estuarine Fringe Riverine	RFT=Riverine Flow Through
RI=River impounding	LFH=Lacustrine Fringe Headwater	LFV=Lacustrine Fringe Valley	DB=Depressional Bog
DA=Depressional Alkaline	DO=Depressional outflow	DCP=Depressional Closed Permanent	
DCNP=Depressional Closed Non-Permanent			

APPENDIX D: WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 1

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec 12D

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 7 %

Subregion (LRR): D Lat: 45.8414 Long: -119.2506 Datum:

Soil Map Unit Name: Adkins NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size:)				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1. <i>Cynodon dactylon</i>	100	x	FACU	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"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: 100				
Woody Vine Stratum (Plot size:)				
1.				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2.				
Total Cover: _____				Remarks:
% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust				

SOIL

Sampling Point: 1

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		
0-9	2.5Y3/3	100					SL	
9-16	10YR4/1	95	10YR3/4	5	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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:
flood irrigated

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 2

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12D

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-7%

Subregion (LRR): D Lat: 45.8414 Long: -119.2506 Datum:

Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Tree Stratum</th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size:).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Sapling/Shrub Stratum</th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Herb Stratum</th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Typha latifolia</i></td><td>20</td><td>x</td><td>OBL</td></tr> <tr><td>2. <i>Schoenoplectus tabernaemontani</i></td><td>20</td><td>x</td><td>OBL</td></tr> <tr><td>3. <i>Juncus articus</i></td><td>40</td><td>x</td><td>FACW</td></tr> <tr><td>4. <i>Oenanthse sarmentosa</i></td><td>10</td><td></td><td>OBL</td></tr> <tr><td>5. <i>Mimulus sp.</i></td><td>10</td><td></td><td>FACW</td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: <u>100</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				5.				Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Typha latifolia</i>	20	x	OBL	2. <i>Schoenoplectus tabernaemontani</i>	20	x	OBL	3. <i>Juncus articus</i>	40	x	FACW	4. <i>Oenanthse sarmentosa</i>	10		OBL	5. <i>Mimulus sp.</i>	10		FACW	6.				7.				8.				1.				2.				<p>Dominance Test worksheet:</p> 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)
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<p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> Remarks: <i>Mimulus sp.</i> assume FACW or wetter	<p>¹Indicators of hydric soil and wetland hydrology must be present.</p>																																																																																								

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	10YR2/1	100					CL	
16-22	10YR4/1	100					CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	Secondary Indicators (2 or more required)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic invertebrates (B13)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Water-Stained Leaves (B9)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): 3"

Wetland Hydrology Present? Yes No

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

Remarks:
flood irrigated -

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 3
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12D
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-7%
 Subregion (LRR): D Lat: 45.8414 Long: -119.2506 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Tree Stratum</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 20%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Sapling/Shrub Stratum</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 20%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Rubus discolor</i></td><td>1</td><td></td><td>FACU</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: 1</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Herb Stratum</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 20%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Calamagrostis rubescens</i></td><td>45</td><td>x</td><td>NOL</td></tr> <tr><td>2. <i>Polypogon monspeliensis</i></td><td>5</td><td></td><td>FACW</td></tr> <tr><td>3. <i>Hordeum jubatum</i></td><td>10</td><td></td><td>FAC</td></tr> <tr><td>4. <i>Cynodon dactylon</i></td><td>30</td><td>x</td><td>FACU</td></tr> <tr><td>5. <i>Cirsium arvense</i></td><td>1</td><td></td><td>FACU</td></tr> <tr><td>6. <i>Trifolium repens</i></td><td>1</td><td></td><td>FACU</td></tr> <tr><td>7. <i>Medicago sativa</i></td><td>1</td><td></td><td>NOL</td></tr> <tr><td>8. <i>Lolium perenne</i></td><td>5</td><td></td><td>FACU</td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: 98</p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>2</u> % Cover of Biotic Crust _____</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Rubus discolor</i>	1		FACU	2.				3.				4.				5.				Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Calamagrostis rubescens</i>	45	x	NOL	2. <i>Polypogon monspeliensis</i>	5		FACW	3. <i>Hordeum jubatum</i>	10		FAC	4. <i>Cynodon dactylon</i>	30	x	FACU	5. <i>Cirsium arvense</i>	1		FACU	6. <i>Trifolium repens</i>	1		FACU	7. <i>Medicago sativa</i>	1		NOL	8. <i>Lolium perenne</i>	5		FACU	1.				2.				<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Remarks:</p>
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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		
0-9	10YR3/2	100					SL	
9-16	2.5Y3/1-2	98	10YR3/4	2	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (Inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 4
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12D
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-7%
 Subregion (LRR): D Lat: 45.8414 Long: -119.2506 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Juncus articus</i>	30	x	FACW	
2. <i>Festuca arundinacea</i>	5		FACU	
3. <i>Agrostis stolonifera</i>	30	x	FACW	
4. <i>Holcus mollis</i>	20	x	FAC	
5. <i>Trifolium repens</i>	10		FACU	
6. <i>Cirsium vulgare</i>	t		FACU	
7.				
8.				
Total Cover: <u>95</u>				
Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
 Total Number of Dominant Species Across All Strata: 3 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks: _____

SOIL

Sampling Point: 4

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		
0-3	7.5YR3/2	100					SL	
3-7	2.5Y3/2	98	2.5Y3/1	2			SL	faint
7-12	2.5Y3/2	95	2.5Y3/3	5	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:
Redox is not distinct.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 5
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12D
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-7%
 Subregion (LRR): D Lat: 45.8414 Long: -119.2506 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				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)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				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"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <i>Juncus arcticus</i>	35	x	FACW	
2. <i>Trifolium repens</i>	10		FACU	
3. <i>Agrostis stolonifera</i>	40	x	FACW	
4. <i>Polypogon monspeliensis</i>	10		FACW	
5. <i>Holcus lanatus</i>	5		FAC	
6.				
7.				
8.				
Total Cover: 100				
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks:
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 0 _____ % Cover of Biotic Crust				

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	10YR2/1	100					SL	
14-20	10YR4/1	100					SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
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- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches):
 Water Table Present? Yes No Depth (inches):
 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:
flood irrigated

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 6

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12D

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-7%

Subregion (LRR): D Lat: 45.8414 Long: -119.2506 Datum:

Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)																
2.																				
3.																				
4.																				
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>(A) _____</td> </tr> <tr> <td colspan="2">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: _____	(A) _____	Prevalence Index = B/A = _____	
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Sapling/Shrub Stratum (Plot size: 5')																				
1.																				
2.																				
3.																				
4.																				
5.																				
Total Cover: _____																				
Herb Stratum (Plot size: 5')																				
1. <i>Juncus articus</i>	1		FACW																	
2. <i>Trifolium repens</i>	60	x	FACU																	
3. <i>Festuca arundinacea</i>	5		FAC																	
4. <i>Lolium perenne</i>	5		FAC																	
5. <i>Holcus lanatus</i>	1		FAC																	
6.																				
7.																				
8.																				
Total Cover: <u>72</u>																				
Woody Vine Stratum (Plot size:)																				
1.																				
2.																				
Total Cover: _____																				
% Bare Ground in Herb Stratum <u>27</u> % Cover of Biotic Crust _____																				
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Remarks:																				

SOIL

Sampling Point: 6

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		
0-2.5	10YR3/2	100					SL	
2.5-12	2.5Y4/3	95	10YR4/4	5	C	M	CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, 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"/> Indicators for Problematic Hydric Soils ³ : |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 7

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 4

Landform (hillslope, terrace, etc.): River Terrace Local relief (concave, convex, none): Concave Slope (%):

Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:

Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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"/>
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Remarks:

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Tree Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Herb Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <i>Phalaris arundinacea</i></td> <td align="center">95</td> <td align="center">x</td> <td align="center">FACW</td> </tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>95</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				1.				2.				3.				4.				5.				Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Phalaris arundinacea</i>	95	x	FACW	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is $\geq 3.0^1$ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks:</p>
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SOIL

Sampling Point: 7

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	10YR3/2	90	10YR4/6	10	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 8
 Investigator(s): MRS Section, Township, Range:
 Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Side Slope Slope (%):12%
 Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:
 Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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"/> Remarks:	is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Tree Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Sapling/Shrub Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Salix alba</i></td><td>60</td><td>x</td><td>FACW</td></tr> <tr><td>2. <i>Cornus alba</i></td><td>10</td><td></td><td>FACW</td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>70</u></p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Herb Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Phalaris arundinacea</i></td><td>20</td><td>x</td><td>FACW</td></tr> <tr><td>2. <i>Distichlis spicata</i></td><td>10</td><td>x</td><td>FAC</td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>30</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Woody Vine Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Clematis ligusticifolia</i></td><td>40</td><td>x</td><td>FAC</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: 40</p> <p>% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Salix alba</i>	60	x	FACW	2. <i>Cornus alba</i>	10		FACW	3.				4.				5.				Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Phalaris arundinacea</i>	20	x	FACW	2. <i>Distichlis spicata</i>	10	x	FAC	3.				4.				5.				6.				7.				8.				Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Clematis ligusticifolia</i>	40	x	FAC	2.				<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across All Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks:</p>
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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
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0-14	10YR3/2	100					CSIL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 9

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 9

Landform (hillslope, terrace, etc.): Drainage Ditch Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR): D Lat: 45.8421 Long: -119.3237 Datum:

Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Tree Stratum</th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1. <i>Phalaris arundinacea</i></td><td style="text-align: center;">30</td><td style="text-align: center;">x</td><td style="text-align: center;">FACW</td></tr> <tr><td>2. <i>Typha latifolia</i></td><td style="text-align: center;">20</td><td style="text-align: center;">x</td><td style="text-align: center;">OBL</td></tr> <tr><td>3. <i>Solanum dulcamara</i></td><td style="text-align: center;">50</td><td style="text-align: center;">x</td><td style="text-align: center;">FAC</td></tr> <tr><td>4. <i>Rumex crispus</i></td><td style="text-align: center;">t</td><td></td><td style="text-align: center;">FAC</td></tr> <tr><td>5. <i>Mentha sp.</i></td><td style="text-align: center;">t</td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: <u>100</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: 40</p> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				1.				2.				3.				4.				5.				1. <i>Phalaris arundinacea</i>	30	x	FACW	2. <i>Typha latifolia</i>	20	x	OBL	3. <i>Solanum dulcamara</i>	50	x	FAC	4. <i>Rumex crispus</i>	t		FAC	5. <i>Mentha sp.</i>	t			6.				7.				8.				1.				2.				<p>Dominance Test worksheet:</p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)</p> <p>Prevalence Index worksheet:</p> <p>Total % Cover of: _____ Multiply by: _____</p> <p>OBL species _____ x 1 = _____</p> <p>FACW species _____ x 2 = _____</p> <p>FAC species _____ x 3 = _____</p> <p>FACU species _____ x 4 = _____</p> <p>UPL species _____ x 5 = _____</p> <p>Column Totals: _____ (A) _____ (B)</p> <p>Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators:</p> <p><input checked="" type="checkbox"/> Dominance Test is >50%</p> <p><input type="checkbox"/> Prevalence Index is ≈3.0¹</p> <p><input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks:</p>
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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		
0-14	2.5Y4/2	97	19YR3/4	3	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**
- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - Hydrogen Sulfide (A4)
 - Stratified Layers (A5) (LRR C)
 - 1 cm Muck (A9) (LRR D)
 - Depleted Below Dark Surface (A11)
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 - Sandy Mucky Mineral (S1)
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- Indicators for Problematic Hydric Soils³:**
- 1 cm Muck (A9) (LRR C)
 - 2 cm Muck (A10) (LRR B)
 - Reduced Vertic (F18)
 - Red Parent Material (TF2)
 - Other (Explain in Remarks)
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
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- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): 2"

Water Table Present? Yes No Depth (inches):

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LW1 City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 10
 Investigator(s): MRS Section, Township, Range: T4N, R28B, Sec. 9
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-3
 Subregion (LRR): D Lat: 45.8421 Long: -119.3237 Datum:
 Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

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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	2.5Y4/3	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
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Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
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- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
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- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 11"
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 9
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR): D Lat: 45.8421 Long: -119.3237 Datum:
 Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				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"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
Herb Stratum (Plot size: 5')				
1. <i>Phalaris arundinacea</i>	5		FACW	
2. <i>Triticum sp.</i>	10		NOL	
3. <i>Onopordum acanthium</i>	60	x	NOL	
4. <i>Salsola kali</i>	20	x	NOL	
5.				
6.				
7.				
8.				
Total Cover: 95				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Remarks:
Woody Vine Stratum (Plot size:)				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust				

SOIL

Sampling Point: 11

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	2.5Y4/3	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 12

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 9

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-3%

Subregion (LRR): D Lat: 45.8421 Long: -119.3237 Datum:

Soil Map Unit Name: Xerofluvents NW! classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Eleagnus angustifolia</i>	55	x	NOL	
2.				
3.				
4.				
Total Cover: <u>55</u>				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1. <i>Chenopodium album</i>	5		FACU	
2. <i>Distichlis spicata</i>	30	x	FAC	
3. <i>Onopordum acanthium</i>	15	x	NOL	
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>50</u>				
Woody Vine Stratum (Plot size:)				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>50</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (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: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is $\approx 3.0^1$
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: 12

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	2.5Y4/3	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 13

Investigator(s): MRS Section, Township, Range: T4N, R28E, B000

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-3%

Subregion (LRR): D Lat: 45.8405 Long: -119.3291 Datum:

Soil Map Unit Name: Xerofluent NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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 checked="" type="checkbox"/>
Remarks:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <i>Phalaris arundinacea</i></td> <td align="center">35</td> <td align="center">x</td> <td align="center">FACW</td> </tr> <tr> <td>2. <i>Cirsium arvense</i></td> <td align="center">20</td> <td align="center">x</td> <td align="center">FACU</td> </tr> <tr> <td>3. <i>Rumex crispus</i></td> <td align="center">30</td> <td align="center">x</td> <td align="center">FAC</td> </tr> <tr> <td>4. <i>Polygonum sp.</i></td> <td align="center">15</td> <td> </td> <td> </td> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: <u>100</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____</p>	1.	Absolute % Cover	Dominant Species?	Indicator Status																	1.	Absolute % Cover	Dominant Species?	Indicator Status																					1.	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Phalaris arundinacea</i>	35	x	FACW	2. <i>Cirsium arvense</i>	20	x	FACU	3. <i>Rumex crispus</i>	30	x	FAC	4. <i>Polygonum sp.</i>	15																															<p>Dominance Test worksheet:</p> 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>63</u> (A/B)
1.	Absolute % Cover	Dominant Species?	Indicator Status																																																																																										
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SOIL

Sampling Point: 13

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	10YR2/2	100					SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Due to recent changes in the wetlands hydrology the area now has wetland hydrology and the soils have not had a chance to form wetland characteristics. The Bureau of Reclamation in 2013, intentionally put a hole in a irrigation syphon pipe allowing water to flow when irrigation water is present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
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- Hydrogen Sulfide Odor (C1)
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- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
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- Drainage Patterns (B10)
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- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

WETLAND DETERMINATION DATA FORM -- Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 14
 Investigator(s): MRS Section, Township, Range: T4N, R28E, B000
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR): D Lat: 45.8405 Long: -119.3291 Datum:
 Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				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)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				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"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <i>Phalaris arundinacea</i>	40	x	FACW	
2. <i>Scirpus acuta</i>	20	x	OBL	
3. <i>Typha latifolia</i>	10		OBL	
4. <i>Carex sp.</i>	5		FAC	
5.				
6.				
7.				
8.				
Total Cover: 75				
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks: vegetation remnant from last year
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 25 litter _____ % Cover of Biotic Crust _____				

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	10YR4/2	90	10YR3/4	10	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
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- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 15
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. B000
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8405 Long: -119.3291 Datum:
 Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Species</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td><i>Sisymbrium altissimum</i></td> <td>35</td> <td>x</td> <td>FACU</td> </tr> <tr> <td>2.</td> <td><i>Cirsium arvense</i></td> <td>20</td> <td>x</td> <td>FACU</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: <u>55</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>45</u> litter _____ % Cover of Biotic Crust _____</p>	1.	Absolute % Cover	Dominant Species?	Indicator Status																	1.	Absolute % Cover	Dominant Species?	Indicator Status																					1.	Species	Absolute % Cover	Dominant Species?	Indicator Status	1.	<i>Sisymbrium altissimum</i>	35	x	FACU	2.	<i>Cirsium arvense</i>	20	x	FACU																																			<p>Dominance Test worksheet:</p> Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
1.	Absolute % Cover	Dominant Species?	Indicator Status																																																																																											
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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	10YR3/2	100					SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 16
 Investigator(s): MRS Section, Township, Range:
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8405 Long: -119.3291 Datum:
 Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sampling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				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"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <i>Alopecurus pratensis</i>	60	x	FACW	
2. <i>Lactuca sp.</i>	5			
3. <i>Cirsium arvense</i>	15		FACU	
4.				
5.				
6.				
7.				
8.				
Total Cover: 80				
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks:
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 20 litter _____ % Cover of Biotic Crust				

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	10YR2/2	100					SiCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

bottom of ditch for irrigation runoff. water turned off so no hydrology present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 17
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 10
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8368 Long: -119.3082 Datum:
 Soil Map Unit Name: Adkins urban land complex NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Salix alba</i>	30	x	FAC	
2. <i>Rubus discolor</i>	75	x	FACU	
3.				
4.				
5.				
Total Cover: 105				
Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	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"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: _____				
Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Remarks:
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 0 _____ % Cover of Biotic Crust				

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	10YR3/1	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock
Depth (inches): 10"

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<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 Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches):

Water Table Present? Yes No Depth (inches):

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 18
 Investigator(s): MRS Section, Township, Range: T4N, R 28E, Sec. 10
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8368 Long: -119.3082 Datum:
 Soil Map Unit Name: Adkins urban Land Complex NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1. <i>Salix sp.</i>	90	x	FAC	
2.				
3.				
4.				
5.				
Total Cover: <u>90</u>				
Herb Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: _				
Woody Vine Stratum (Plot size:)				
1.				
2.				
Total Cover:				
% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

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	2.5Y3/2	100					S	
10-18	10YR3/2	98	10YR3/4	2	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches):

Water Table Present? Yes No Depth (inches):

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 19
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 11
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3-7%
 Subregion (LRR): D Lat: 45.8389 Long: -119.2754 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				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"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <i>Cynodon dactylon</i>	95	x	FACU	
2. <i>Hordeum jubatum</i>	5		FAC	
3. <i>Cirsium vulgare</i>	t		FACU	
4.				
5.				
6.				
7.				
8.				
Total Cover: 100				
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Remarks:
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 0 _____ % Cover of Biotic Crust				

SOIL

Sampling Point: 19

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		
0-12	2.5Y2/1	100					S	
12-21	2.5Y3/2	90	2.5Y3/1	10	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 20
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec 11
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%):3-6
 Subregion (LRR):D Lat: 45.8389 Long: -119.2754 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Species</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td> </td> <td><i>Poa pratensis</i></td> <td>85</td> <td>x</td> <td>FAC</td> </tr> <tr> <td> </td> <td><i>Typha latifolia</i></td> <td>5</td> <td> </td> <td>OBL</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: <u>90</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Species</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u> 10 </u> % Cover of Biotic Crust _____</p>	1.	Absolute % Cover	Dominant Species?	Indicator Status																	1.	Absolute % Cover	Dominant Species?	Indicator Status																					1.	Species	Absolute % Cover	Dominant Species?	Indicator Status		<i>Poa pratensis</i>	85	x	FAC		<i>Typha latifolia</i>	5		OBL																																				1.	Species	Absolute % Cover	Dominant Species?	Indicator Status											<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks: Typha in ditch</p>
1.	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																											
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SOIL

Sampling Point: 20

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	10YR3/2	100					GSL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, 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"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 21
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 21B
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR): D Lat: 45.8207 Long: -119.3305 Datum:
 Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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"/> Remarks:	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				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)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')				
1. <i>Rosa gymnocarpa</i>	60	x	FAC	
2.				
3.				
4.				
5.				
Total Cover: <u>60</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"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
Herb Stratum (Plot size: 5')				
1. <i>Urtica dioica</i>	40	x	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>40</u>				
Woody Vine Stratum (Plot size:)				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks:				

SOIL

Sampling Point: 21

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	10YR3/3	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<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 Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (Includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: _____

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 22
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 21B
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR): D Lat: 45.8207 Long: -119.3305 Datum:
 Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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: Minihaha spring	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Tree Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. <i>Typha latifolia</i></td><td align="center">40</td><td align="center">x</td><td align="center">OBL</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum _____ 60 open water _____ % Cover of Biotic Crust _____</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				1.				2.				3.				4.				5.				1. <i>Typha latifolia</i>	40	x	OBL	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks:</p>
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SOIL

Sampling Point: 22

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	10YR2/1	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Vegetation and hydrology criteria met. Plot is located where water is likely to pond and is determined to be hydric. Soil may meet A12 criteria - sample not dug to depth able to make that determination.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 23
 Investigator(s): MRS Section, Township, Range: T4N, 28E, Sec 16
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8306 Long: -119.3222 Datum:
 Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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: West of property - Phalaris arundinacea, dogwood, coyote thistle	

VEGETATION

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1. <i>Artemisia tridentata</i>	15	x	NOL	
2.				
3.				
4.				
5.				
Total Cover: <u>x</u>				
Herb Stratum (Plot size: 5')				
1. <i>Bromus tectorum</i>	30	x	NOL	
2. <i>Hordeum brachyantherum</i>	5		FACW	
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>35</u>				
Woody Vine Stratum (Plot size:)				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks: _____

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		
0-12	10YR3/3	100					GSL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12
 Applicant/Owner: State: OR Sampling Point: 24
 Investigator(s): MRS Section, Township, Range: T4N, R28, Sec. 16
 Landform (hillslope, terrace, etc.): Floodplain Bench Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8389 Long: -119.3298 Datum:
 Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Tree Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Sapling/Shrub Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Celtis reticulata</i></td><td>60</td><td>x</td><td>FAC</td></tr> <tr><td>2. <i>Salix sp.</i></td><td>30</td><td>x</td><td>FAC</td></tr> <tr><td>3. <i>Rhus glabra</i></td><td>10</td><td></td><td>NOL</td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>100</u></p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Herb Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust _____</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Celtis reticulata</i>	60	x	FAC	2. <i>Salix sp.</i>	30	x	FAC	3. <i>Rhus glabra</i>	10		NOL	4.				5.				Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks:</p>
Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status																																																																																						
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SOIL

Sampling Point: 24

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		
0-18	2.5Y4/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Blotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: _____

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/10/12

Applicant/Owner: State: OR Sampling Point: 25

Investigator(s): MRS Section, Township, Range: T4N, R 28E, Sec. 16

Landform (hillslope, terrace, etc.): Floodplain Bench Local relief (concave, convex, none): None Slope (%):

Subregion (LRR):D Lat: 45.8389 Long: -119.3298 Datum:

Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">1.</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:15%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <i>Phalaris arundinacea</i></td> <td align="center">95</td> <td align="center">x</td> <td align="center">FACW</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: <u>95</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____</p>	1.	Absolute % Cover	Dominant Species?	Indicator Status																	1.	Absolute % Cover	Dominant Species?	Indicator Status																					1.	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Phalaris arundinacea</i>	95	x	FACW																																					<p>Dominance Test worksheet:</p> 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)
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<p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> Remarks: Some rose at edge.	<p>¹Indicators of hydric soil and wetland hydrology must be present.</p>																																																																																								

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		
0-18	10YR3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (Inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 26

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 3

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):

Subregion (LRR):D Lat: 45.8310 Long: -119.3058 Datum:

Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Populus deltoides</i>	60	x	FAC	
2.				
3.				
4.				
Total Cover: <u>60</u>				
<u>Sapling/Shrub Stratum</u> (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
<u>Herb Stratum</u> (Plot size: 5')				
1. <i>Festuca arundinacea</i>	50	x	FAC	
2. <i>Dactylis glomerata</i>	25	x	FACU	
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>75</u>				
<u>Woody Vine Stratum</u> (Plot size:)				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

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		
0-18	2.5Y3/2	100					LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <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"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <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)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input 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) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: Depth (inches):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (any one indicator is sufficient)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <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 Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary Indicators (2 or more required)</u> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches):	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 27

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 4

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):

Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:

Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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: Sewage Treatment Plant	

VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%;">Absolute % Cover</th> <th style="width:10%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <i>Populus tremuloides</i></td> <td align="center">40</td> <td align="center">x</td> <td align="center">FACU</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: <u>40</u></p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td>1. <i>Crataegus douglasii</i></td> <td align="center">5</td> <td align="center">x</td> <td align="center">FAC</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: <u>5</u></p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td>1. <i>Medicago lupulina</i></td> <td align="center">40</td> <td align="center">x</td> <td align="center">FAC</td> </tr> <tr> <td>2. <i>Bromus tectorum</i></td> <td align="center">40</td> <td align="center">x</td> <td align="center">NOL</td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>7.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>8.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: <u>80</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td>1.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____</p>		Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Populus tremuloides</i>	40	x	FACU	2.				3.				4.				1. <i>Crataegus douglasii</i>	5	x	FAC	2.				3.				4.				5.				1. <i>Medicago lupulina</i>	40	x	FAC	2. <i>Bromus tectorum</i>	40	x	NOL	3.				4.				5.				6.				7.				8.				1.				2.				<p>Dominance Test worksheet:</p> 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)
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<p>Prevalence Index worksheet:</p> 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: _____ (A) _____ (B) Prevalence Index = B/A = _____																																																																																	
<p>Hydrophytic Vegetation Indicators:</p> <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"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																																																	
<p>¹Indicators of hydric soil and wetland hydrology must be present.</p>																																																																																	
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SOIL

Sampling Point: 27

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		
0-18	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<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 Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 28

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 4

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):

Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:

Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30)				
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1. <i>Phalaris arundinacea</i>	95	x		FACW
2. <i>Xanthium strumarium</i>	5			FAC
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>100</u>				
Woody Vine Stratum (Plot size:)				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: 28

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		
0-3	5Y4/2	100					S	
3-16	2.5Y3/2	95	10YR3/4	5	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
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- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
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- Drainage Patterns (B10)
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- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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:

At river's edge - within OHW

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 29
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 4
 Landform (hillislope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):0-3
 Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:
 Soil Map Unit Name: xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;"></th> <th style="width:10%; text-align:center;">Absolute % Cover</th> <th style="width:10%; text-align:center;">Dominant Species?</th> <th style="width:20%; text-align:center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td style="width:60%;">1. <i>Rosa gymnocarpa</i></td> <td style="width:10%; text-align:center;">5</td> <td style="width:10%; text-align:center;">x</td> <td style="width:20%; text-align:center;">FAC</td> </tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>5</u></p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td style="width:60%;">1. <i>Phalaris arundinacea</i></td> <td style="width:10%; text-align:center;">20</td> <td style="width:10%; text-align:center;">x</td> <td style="width:20%; text-align:center;">FACW</td> </tr> <tr> <td>2. <i>Xanthium strumarium</i></td> <td style="text-align:center;">5</td> <td></td> <td style="text-align:center;">FAC</td> </tr> <tr> <td>3. <i>Lolium perenne</i></td> <td style="text-align:center;">30</td> <td style="text-align:center;">x</td> <td style="text-align:center;">FAC</td> </tr> <tr> <td>4. <i>Bromus tectorum</i></td> <td style="text-align:center;">25</td> <td style="text-align:center;">x</td> <td style="text-align:center;">NOL</td> </tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>80</u></p> <p><u>Woody Vine Stratum</u> (Plot size:)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td></tr> <tr><td>2.</td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____</p>		Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				1. <i>Rosa gymnocarpa</i>	5	x	FAC	2.				3.				4.				5.				1. <i>Phalaris arundinacea</i>	20	x	FACW	2. <i>Xanthium strumarium</i>	5		FAC	3. <i>Lolium perenne</i>	30	x	FAC	4. <i>Bromus tectorum</i>	25	x	NOL	5.				6.				7.				8.				1.		2.		<p>Dominance Test worksheet:</p> 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)
	Absolute % Cover	Dominant Species?	Indicator Status																																																																										
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1.																																																																													
2.																																																																													
<p>Prevalence Index worksheet:</p> 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: _____ (A) _____ (B) Prevalence Index = B/A = _____	<p>Hydrophytic Vegetation Indicators:</p> <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"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																																												
<p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> Remarks:	<p>¹Indicators of hydric soil and wetland hydrology must be present.</p>																																																																												

SOIL

Sampling Point: 29

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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <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"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <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)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input 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) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: Depth (inches):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (any one indicator is sufficient)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <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 Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary Indicators (2 or more required)</u> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Just above OHW.		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 30
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 4
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:
 Soil Map Unit Name: Quincy Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Acer glabrum</i>	10	x	FAC	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)
2.				
3.				
4.				
Total Cover: 10				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')				
1. <i>Eleagnus angustifolia</i>	80	x	FAC	
2.				
3.				
4.				
5.				
Total Cover: 80				
Herb Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: _____				
Woody Vine Stratum (Plot size: 5')				
1. <i>Vitis riparia</i>	10	x	FAC	
2.				
Total Cover: 10				
% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust				
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"/> Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present.				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks:				

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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Underlain by basalt rock. Extended out to waters edge.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 31
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 4
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30) Absolute Dominant Indicator % Cover Species? Status</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1. <i>Oenanthse sarmentosa</i></td><td align="center">100</td><td align="center">x</td><td align="center">OBL</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: <u>100</u></p> <p><u>Woody Vine Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____</p>	1.				2.				3.				4.				1.				2.				3.				4.				5.				1. <i>Oenanthse sarmentosa</i>	100	x	OBL	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks:</p>
1.																																																																													
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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		
							S

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, 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"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Could not get good soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

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:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 32
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 4
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8600 Long: -119.3140 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%; text-align:center;">Absolute % Cover</th> <th style="width:10%; text-align:center;">Dominant Species?</th> <th style="width:10%; text-align:center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%; text-align:center;">Absolute % Cover</th> <th style="width:10%; text-align:center;">Dominant Species?</th> <th style="width:10%; text-align:center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Salix exigua</i></td><td align="center">95</td><td align="center">x</td><td align="center">FACW</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>95</u></p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"></th> <th style="width:10%; text-align:center;">Absolute % Cover</th> <th style="width:10%; text-align:center;">Dominant Species?</th> <th style="width:10%; text-align:center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Agropyron cristatum</i></td><td align="center">5</td><td align="center">x</td><td align="center">NOL</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>5</u></p> <p><u>Woody Vine Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>90</u> % Cover of Biotic Crust _____</p>		Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Salix exigua</i>	95	x	FACW	2.				3.				4.				5.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Agropyron cristatum</i>	5	x	NOL	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>Dominance Test worksheet:</p> Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
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<p>Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> Remarks: PHAR & willow above OHW	<p>¹indicators of hydric soil and wetland hydrology must be present.</p>																																																																																								

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		
0-3	2.5Y3/2	100					S	
3-14	2.5Y3/2	100					LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histic Sol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Fill area. Appeared to be filled for Sewage Treatment Plant

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 33

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12

Landform (hillslope, terrace, etc.): Drain/Ditch Local relief (concave, convex, none): Concave Slope (%):3-6

Subregion (LRR):D Lat: 45.8432 Long: -119.2536 Datum:

Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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"/> Remarks:	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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VEGETATION

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SOIL

Sampling Point: 33

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	2.5Y3/2	90	10YR3/4	10	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input checked="" type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
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		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

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: _____

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 34

Investigator(s): MRS Section, Township, Range: T4N, R28E, 12

Landform (hillslope, terrace, etc.): Drain/Ditch Local relief (concave, convex, none): Concave Slope (%): 3-6%

Subregion (LRR): D Lat: 45.8432 Long: -119.2536 Datum:

Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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"/> Remarks:	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Aruncus dioica</i></td><td>30</td><td>x</td><td>FACU</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Echinochloa crus-galli</i></td><td>10</td><td>x</td><td>FACW</td></tr> <tr><td>2. <i>Amaranthus sp.</i></td><td>5</td><td>x</td><td>FAC</td></tr> <tr><td>3. <i>Salsola kali</i></td><td>5</td><td></td><td>NOL</td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: <u>20</u></p> <p><u>Woody Vine Stratum</u> (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>80</u> % Cover of Biotic Crust _____</p>		Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Aruncus dioica</i>	30	x	FACU	2.				3.				4.				5.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Echinochloa crus-galli</i>	10	x	FACW	2. <i>Amaranthus sp.</i>	5	x	FAC	3. <i>Salsola kali</i>	5		NOL	4.				5.				6.				7.				8.				1.				2.				<p>Dominance Test worksheet:</p> 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>66</u> (A/B)
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<p>Hydrophytic Vegetation Indicators:</p> <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"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																																																									
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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		
0-18	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Blotic Crust (B12)	
<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 Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

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: _____

Irrigated. _____

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 35
 Investigator(s): MRS Section, Township, Range: T4N, R28E, 12
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3-6
 Subregion (LRR): D Lat: 45.8432 Long: -119.2536 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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 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"/> Remarks: Ditch	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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VEGETATION

<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover: _____			
<u>Sapling/Shrub Stratum</u> (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
Total Cover: _____			
<u>Herb Stratum</u> (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover: _____			
<u>Woody Vine Stratum</u> (Plot size: 5')			
1.			
2.			
Total Cover: _____			
% Bare Ground in Herb Stratum _____ 100 _____ % Cover of Biotic Crust			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks: n/a

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		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 36

Investigator(s): MRS Section, Township, Range: T4N, R28E, 12

Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3-6

Subregion (LRR): D Lat: 45.8432 Long: -119.2536 Datum:

Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

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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		
0-18	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
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- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 37
 Investigator(s): MRS Section, Township, Range: T4N, R28E, 12
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%):3-6
 Subregion (LRR):D Lat: 45.8432 Long: -119.2536 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30) Absolute Dominant Indicator % Cover Species? Status</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1. <i>Eleagnus angustifolia</i></td><td>90</td><td>x</td><td>FAC</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: <u>90</u></p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1. <i>Lolium perenne</i></td><td>10</td><td>x</td><td>FAC</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: <u>10</u></p> <p><u>Woody Vine Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____</p>	1.				2.				3.				4.				1. <i>Eleagnus angustifolia</i>	90	x	FAC	2.				3.				4.				5.				1. <i>Lolium perenne</i>	10	x	FAC	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks:</p>
1.																																																																													
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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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, 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"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 38

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12

Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3-6%

Subregion (LRR): D Lat: 45.8432 Long: -119.2536 Datum:

Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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 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: Ditch	

VEGETATION

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30)				
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: _____				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 100 _____ % Cover of Biotic Crust _____				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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: _____ (A) _____ (B)

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)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: Ditch. Scattered Phalaris arundinacea at edges.

SOIL

Sampling Point: 38

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		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): 1.5"
 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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 39
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3-6%
 Subregion (LRR): D Lat: 45.8432 Long: -119.2536 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1. <i>Rosa eglanteria</i>	60	x	UPL	
2. <i>Eleagnus angustifolia</i>	30	x	FAC	
3.				
4.				
5.				
Total Cover: <u>90</u>				
Herb Stratum (Plot size: 5')				
1. <i>Lolium perenne</i>	70	x	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>70</u>				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: 39

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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 40
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 12
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%):3-6%
 Subregion (LRR):D Lat: 45.8432 Long: -119.2536 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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 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: Ditch	

VEGETATION

<p>Tree Stratum (Plot size: 30)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;"></th> <th style="width:35%;">Absolute % Cover</th> <th style="width:35%;">Dominant Species?</th> <th style="width:25%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>Sapling/Shrub Stratum (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>Herb Stratum (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>Woody Vine Stratum (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum _____ 100 _____ % Cover of Biotic Crust</p>		Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				1.				2.				3.				4.				5.				1.				2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Remarks:</p>
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SOIL

Sampling Point: 40

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. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): 2"
 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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 41
 Investigator(s): MRS Section, Township, Range: T4N, R 28E, Sec. 12
 Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): Concave Slope (%):3-6
 Subregion (LRR):D Lat: 45.8432 Long: -119.2536 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p>Tree Stratum (Plot size: 30)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Tree Stratum</th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <i>Populous trichocarpa</i></td> <td align="center">20</td> <td align="center">x</td> <td align="center">FAC</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: <u>20</u></p> <p>Sapling/Shrub Stratum (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td>1.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2. <i>Eleagnus angustifolia</i></td> <td align="center">20</td> <td align="center">x</td> <td align="center">FAC</td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: <u>20</u></p> <p>Herb Stratum (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td>1. <i>Lolium perenne</i></td> <td align="center">60</td> <td align="center">x</td> <td align="center">FAC</td> </tr> <tr> <td>2. <i>Urticua dioica</i></td> <td align="center">5</td> <td></td> <td align="center">FAC</td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>7.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>8.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: <u>65</u></p> <p>Woody Vine Stratum (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td>1.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Populous trichocarpa</i>	20	x	FAC	2.				3.				4.				1.				2. <i>Eleagnus angustifolia</i>	20	x	FAC	3.				4.				5.				1. <i>Lolium perenne</i>	60	x	FAC	2. <i>Urticua dioica</i>	5		FAC	3.				4.				5.				6.				7.				8.				1.				2.				<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks:</p>
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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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

- | | | |
|--|---|---|
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Vernal Pools (F9) | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches):	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):		
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches):		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 42
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 10
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3-6
 Subregion (LRR): D Lat: 45.8368 Long: -119.3073 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
<u>Herb Stratum</u> (Plot size: 5')				
1. <i>Chenopodium album</i>	55	x		FACU
2. <i>Lepidium latifolium</i>	40	x		FAC
3. <i>Phalaris arundinacea</i>	5			FACW
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>100</u>				
<u>Woody Vine Stratum</u> (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: *Lepidium* is an invasive species. May be problematic.

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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
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- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
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- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 43
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 13
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8345 Long: -119.2718 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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: within OHW	

VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30) Absolute Dominant Indicator % Cover Species? Status</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </table> <p align="right">Total Cover: <u>100</u></p> <p><u>Woody Vine Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1.</td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td></tr> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>80 (OW)</u> % Cover of Biotic Crust _____</p>	1.				2.				3.				4.				1.				2.				3.				4.				5.				1.				2.				3.				4.				5.				6.				7.				8.				1.			2.			<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks: Polygonum sp, Phalaris arundinacea & Alisma sp present at edges.</p>
1.																																																																											
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SOIL

Sampling Point: 43

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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock
Depth (inches): 6"

Hydric Soil Present? Yes No

Remarks:

Waterway. 80% open water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): 6"
 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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 44
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 13
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8345 Long: -119.2718 Datum:
 Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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: lawn	

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	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"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <i>Poa pratensis</i>	90	x	FAC	
2. <i>Juncus oxymetris</i>	10		FACW	
3. <i>Taraxicum officinale</i>	5		FACU	
4.				
5.				
6.				
7.				
8.				
Total Cover: 105				
Woody Vine Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks: lawn area
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust				

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	2.5Y3/2	100					SL	
6-18	2.5Y4/2	100					SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**
- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - Hydrogen Sulfide (A4)
 - Stratified Layers (A5) (LRR C)
 - 1 cm Muck (A9) (LRR D)
 - 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)
 - Loamy Gleyed Matrix (F2)
 - Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)
 - Vernal Pools (F9)
- Indicators for Problematic Hydric Soils³:**
- 1 cm Muck (A9) (LRR C)
 - 2 cm Muck (A10) (LRR B)
 - Reduced Vertic (F18)
 - Red Parent Material (TF2)
 - Other (Explain in Remarks)
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	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):	
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 45
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 9
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%):
 Subregion (LRR):D Lat: 45.8421 Long: -119.3237 Datum:
 Soil Map Unit Name: Xerofluents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30)				
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1. <i>Juncus arcticus</i>	95	x		FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>95</u>				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks:

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	2.5Y3/2	100					SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 46
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 9
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%):3-6%
 Subregion (LRR):D Lat: 45.8421 Long: -119.3237 Datum:
 Soil Map Unit Name: Xerofluents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p><u>Tree Stratum</u> (Plot size: 30)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;"></th> <th style="width:45%;">Absolute % Cover</th> <th style="width:30%;">Dominant Species?</th> <th style="width:20%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Sapling/Shrub Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p><u>Herb Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%;">Absolute % Cover</th> <th style="width:10%;">Dominant Species?</th> <th style="width:40%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Typha latifolia</i></td><td>30</td><td>x</td><td>OBL</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: <u>30</u></p> <p><u>Woody Vine Stratum</u> (Plot size: 5')</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p align="right">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>70</u> % Cover of Biotic Crust _____</p>		Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				1.				2.				3.				4.				5.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Typha latifolia</i>	30	x	OBL	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks: bare ground is litter</p>
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																		
1.																																																																																					
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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	2.5Y3/2	100					SL	
7-16	2.5Y3/2	98	10YR3/4	2	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 47
 Investigator(s): MRS Section, Township, Range: T4N, R28E, B000
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR): D Lat: 45.8405 Long: -119.3291 Datum:
 Soil Map Unit Name: Xerfluents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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: old drainage ditch for irrigation runoff	

VEGETATION

Tree Stratum (Plot size: 30)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			

Total Cover: _____

Sapling/Shrub Stratum (Plot size: 5')

1.			
2.			
3.			
4.			
5.			

Total Cover: _____

Herb Stratum (Plot size: 5')

1. <i>Sisymbrium altissimum</i>	10		FACU
2. <i>Cirsium arvense</i>	65	x	FAC
3. <i>Polygonum sp.</i>	10		
4. <i>Lactuca sp.</i>	1		FAC
5. <i>Typha latifolia</i>	t		OBL
6.			
7.			
8.			

Total Cover: 86

Woody Vine Stratum (Plot size: 5')

1.			
2.			

Total Cover: _____

% Bare Ground in Herb Stratum 14 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (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: _____ (A) _____ (B)

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)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: _____

SOIL

Sampling Point: 47

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-5	2.5Y3/2	100					SL	
5-16	2.5Y3/2	98	2.5Y3/3	2	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, 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"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Type:	
Depth (inches):	

Remarks:
 Due to recent changes in the wetlands hydrology the area now has wetland hydrology and the soils have not had a chance to form wetland characteristics. The Bureau of Reclamation in 2013, intentionally put a hole in a irrigation syphon pipe allowing water to flow when irrigation water is present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<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 Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): Surf	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches):	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): Surf (includes capillary fringe)	

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 48
 Investigator(s): MRS Section, Township, Range: T4N, R28E, B000
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): Concave Slope (%): 3-6%
 Subregion (LRR): D Lat: 45.8405 Long: -119.3291 Datum:
 Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1. <i>Phalaris arundinacea</i>	55	x		FACW
2. <i>Cirsium arvense</i>	1			FACU
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>56</u>				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>44</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks:

SOIL

Sampling Point: 48

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	2.5Y3/2	90	10YR3/4	10	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

old drainage swale for irrigation. water turned off.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 49
 Investigator(s): MRS Section, Township, Range: T4N, R28E, B000
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3-6%
 Subregion (LRR): D Lat: 45.8405 Long: -119.3291 Datum:
 Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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 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:	

VEGETATION

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30)				
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: _____				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks: n/a - no water. Litter. Dead Typha latifolia

SOIL

Sampling Point: 49

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	2.5Y3/2	80	10YR3/4	20	C	M	LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input checked="" type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Secondary Indicators (2 or more required)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: irrigation runoff. Not on this year. No hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 50

Investigator(s): MRS Section, Township, Range: T4N, R28E, B000

Landform (hillislope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3-6%

Subregion (LRR): D Lat: 45.8405 Long: -119.3291 Datum:

Soil Map Unit Name: Xerofluvents NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
2.				
3.				
4.				
Total Cover: _____				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: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1. <i>Phalaris arundinacea</i>	100	x	FACW	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"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: 100				
Woody Vine Stratum (Plot size: 5')				
1.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 0 _____ % Cover of Biotic Crust _____				
Remarks:				

SOIL

Sampling Point: 50

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		
0-18	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
adjacent to river ~ 10 feet above.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	Secondary Indicators (2 or more required)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Water-Stained Leaves (B9)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 51

Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec. 8

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3-6%

Subregion (LRR): D Lat: 45.8387 Long: -119.3333 Datum:

Soil Map Unit Name: Adkins Fine Sandy Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: 30)																				
1. <i>Robinia pseudoacacia</i>	40	x	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)																
2.																				
3.																				
4.																				
Total Cover: 40				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: right;">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>(A) _____</td> </tr> <tr> <td colspan="2" style="text-align: right;">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: _____	(A) _____	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: _____	(A) _____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: 5')																				
1.																				
2.																				
3.																				
4.																				
5.																				
Total Cover: _____				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"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
Herb Stratum (Plot size: 5')																				
1. <i>Phalaris arundinacea</i>	95	x	FACW																	
2. <i>Urtica dioica</i>	5		FAC																	
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
Total Cover: 100																				
Woody Vine Stratum (Plot size: 5')																				
1.																				
2.																				
Total Cover: _____																				
% Bare Ground in Herb Stratum _____ 0 _____ % Cover of Biotic Crust _____																				
				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Remarks:																

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	2.5Y3/2	100					LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 52
 Investigator(s): MRS Section, Township, Range: T4n, R28E, Sec. 11
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%):
 Subregion (LRR):D Lat: 45.8467 Long: -119.2694 Datum:
 Soil Map Unit Name: Wanser Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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"/> Remarks: Adjacent to ditch	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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VEGETATION

<p>Tree Stratum (Plot size: 30)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">Absolute % Cover</th> <th style="width: 10%; text-align: center;">Dominant Species?</th> <th style="width: 20%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>Sapling/Shrub Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">Absolute % Cover</th> <th style="width: 10%; text-align: center;">Dominant Species?</th> <th style="width: 20%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Eleagnus angustifolia</i></td><td style="text-align: center;">15</td><td style="text-align: center;">x</td><td style="text-align: center;">FAC</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>Herb Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">Absolute % Cover</th> <th style="width: 10%; text-align: center;">Dominant Species?</th> <th style="width: 20%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Phalaris arundinacea</i></td><td style="text-align: center;">100</td><td style="text-align: center;">x</td><td style="text-align: center;">FACW</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: <u>100</u></p> <p>Woody Vine Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____</p>		Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Eleagnus angustifolia</i>	15	x	FAC	2.				3.				4.				5.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Phalaris arundinacea</i>	100	x	FACW	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Remarks:</p>
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																						
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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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 53
 Investigator(s): MRS Section, Township, Range: T4N, R 28 E, Sec. 11
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3-6
 Subregion (LRR): D Lat: 45.8467 Long: -119.2694 Datum:
 Soil Map Unit Name: Wanser Loamy Fine Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1.				
2. <i>Bromus tectorum</i>	20	x		NOL
3. <i>Hordeum brachytherum</i>	10	x		FACW
4. <i>Grindelia squarrosa</i>	5			FACU
5.				
6.				
7.				
8.				
Total Cover: <u>35</u>				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>65</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: 52

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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, 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) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 54
 Investigator(s): MRS Section, Township, Range: T4N, R 28E, Sec. 11
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8489 Long: -119.2641 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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"/> Remarks:	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

VEGETATION

<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: 5')				
1. <i>Eleagnus angustifolia</i>	95	x	FAC	
2.				
3.				
4.				
5.				
Total Cover: <u>95</u>				
<u>Herb Stratum</u> (Plot size: 5')				
1. <i>Festuca arundinacea</i>	15	x	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>15</u>				
<u>Woody Vine Stratum</u> (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>80</u> % Cover of Biotic Crust _____				

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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks:

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		
0-18	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 55
 Investigator(s): MRS Section, Township, Range: T4N, R 28E, Sec. 11
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%):
 Subregion (LRR):D Lat: 45.8489 Long: -119.2641 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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:	

VEGETATION

<p>Tree Stratum (Plot size: 30)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Tree Stratum</th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>Sapling/Shrub Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Sapling/Shrub Stratum</th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Eleagnus angustifolia</i></td><td>40</td><td>x</td><td>FAC</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: <u>40</u></p> <p>Herb Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Herb Stratum</th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Chloris cuculata</i></td><td>90</td><td>x</td><td>NOL</td></tr> <tr><td>2. <i>Lactuca sp.</i></td><td>10</td><td></td><td>FAC-FACU</td></tr> <tr><td>3. <i>Juncus arcticus</i></td><td>t</td><td></td><td>FACW</td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: <u>100</u></p> <p>Woody Vine Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____</p>	Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Eleagnus angustifolia</i>	40	x	FAC	2.				3.				4.				5.				Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Chloris cuculata</i>	90	x	NOL	2. <i>Lactuca sp.</i>	10		FAC-FACU	3. <i>Juncus arcticus</i>	t		FACW	4.				5.				6.				7.				8.				1.				2.				<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Remarks:</p>
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SOIL

Sampling Point: 55

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	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

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:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 56
 Investigator(s): MRS Section, Township, Range: T4N, R28E, Sec 11
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%):
 Subregion (LRR):D Lat: 45.8489 Long: -119.2641 Datum:
 Soil Map Unit Name: Winchester Sand NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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"/> Remarks:	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	--

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')				
1. <i>Juncus arcticus</i>	15			FACW
2. <i>Distichlis spicata</i>	30	x		FAC
3. <i>Lactuca serriola</i>	25	x		FACU
4. <i>Asclepias speciosa</i>	10			FAC
5. <i>Hordeum jubatum</i>	5			FAC
6.				
7.				
8.				
Total Cover: <u>85</u>				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum _____ 15 litter _____ % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

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	5YR3/2	99	5YR3/3	1	C	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 57

Investigator(s): MRS Section, Township, Range: T4N, R28E, B000

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): None Slope (%): 0-3%

Subregion (LRR): D Lat: 45.8465 Long: -119.3181 Datum:

Soil Map Unit Name: Gravel Pits NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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: Could not obtain soil sample. Soil kept disenigrating off the shovel.	

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')				
1. <i>Eleagnus angustifolia</i>	80	x	FAC	
2.				
3.				
4.				
5.				
Total Cover: <u>80</u>				
Herb Stratum (Plot size: 5')				
1. <i>Lolium perenne</i>	30	x	FAC	
2. <i>Onopordum acanthium</i>	5		NOL	
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>35</u>				
Woody Vine Stratum (Plot size: 5')				
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>50</u> % Cover of Biotic Crust _____				

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: _____ (A) _____ (B)

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)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

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. ²Location: PL=Pore Lining, RC=Root Channel, 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"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input checked="" type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Soil Sample could not be obtained. Kept disenigrating off the shovel.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 6"		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches):		
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): Surf		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12

Applicant/Owner: State: OR Sampling Point: 58

Investigator(s): MRS Section, Township, Range: T4N, R28E, B000

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): None Slope (%): 0-3%

Subregion (LRR): D Lat: 45.8465 Long: -119.3181 Datum:

Soil Map Unit Name: Gravel Pits NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation , Soil , or Hydrology 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: Compacted Dirt Road	

VEGETATION

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____				
Sapling/Shrub Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
5.				
Total Cover: _____				
Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Bromus tectorum</i>	30	x	FAC	
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Total Cover: <u>30</u>				
Woody Vine Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
Total Cover: _____				
% Bare Ground in Herb Stratum <u>70</u> % Cover of Biotic Crust _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (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: _____ (A) _____ (B)
 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)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No
 Remarks: _____

SOIL

Sampling Point: 57

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		
0-18	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<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)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Compacted dirt road.

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

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 – Arid West Region

Project/Site: Hermiston LWI City/County: Hermiston Sampling Date: 7/31/12
 Applicant/Owner: State: OR Sampling Point: 59
 Investigator(s): MRS Section, Township, Range: T4N, R28E, B000
 Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR): D Lat: 45.8465 Long: -119.3181 Datum:
 Soil Map Unit Name: Gravel Pits NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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"/> Remarks: Compacted Dirt Road	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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VEGETATION

<p>Tree Stratum (Plot size: 30)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 35%;">Absolute % Cover</th> <th style="width: 20%;">Dominant Species?</th> <th style="width: 40%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>Sapling/Shrub Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>Herb Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 40%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Bromus tectorum</i></td><td>30</td><td>x</td><td>FAC</td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: <u>30</u></p> <p>Woody Vine Stratum (Plot size: 5')</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> </tbody> </table> <p style="text-align: right;">Total Cover: _____</p> <p>% Bare Ground in Herb Stratum <u>70</u> % Cover of Biotic Crust _____</p>		Absolute % Cover	Dominant Species?	Indicator Status	1.				2.				3.				4.				1.				2.				3.				4.				5.					Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Bromus tectorum</i>	30	x	FAC	2.				3.				4.				5.				6.				7.				8.				1.				2.				<p>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)</p> <p>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: _____ (A) _____ (B) Prevalence index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0¹ <input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present.</p> <p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks: _____</p>
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																		
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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		
0-18	2.5Y3/2	100					S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- 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)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:
Depth (inches):

Hydric Soil Present? Yes No

Remarks:

Compacted dirt road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes No

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

Remarks:

APPENDIX E: OFWAM DATA RESULTS

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			

Wetland Mapping Code:	A	Date(es) of Fieldwork:	7/10/2012
Size (acres):	2.61	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	Off-site		

Wetland Location: North of E. Elm Ave., west of NE 4th St.

Wetland Viewing: Off-site determination. Wetland could be viewed from TL # 200.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	N/A Fish habitat is not present.
Water Quality	Wetland's water-quality is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high potential for enhancement.
Education	Wetland site is not appropriate for educational use.
Recreation	Wetland not appropriate/does not provide recreational opportunity.
Aesthetic Quality	No viewing area. N/A for Aesthetic Quality.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species
Rational:	More than one Cowardin class. Dominated by emergent vegetation. Adjacent land is mostly open space. No connections to Water Quality limited streams. Wetlands buffer is greater than 40%. No upstream reaches.	
Fish Habitat	Assessment Result	N/A Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source is groundwater. Moderate vegetation cover. Adjacent land use is open space. Evidence of flooding or ponding during portion of open season. No surface water connection to other wetlands/streams.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland within an enclosed basin. Wetland has no outlet. Dominated by emergent vegetation or wet meadow. No downstream, down-slope or upslope of wetland. Wetland is a depression.	
Sensitivity to Impact	Assessment Result	Potentially sensitive to future impacts.
Rational:	Hermiston ditch is south of wetland, human modifications. Water is taken out of Hermiston ditch. Dominant surrounding land use is open space zoned for developed uses.	
Enhancement Potential	Assessment Result	Wetland has high potential for enhancement
Rational:	Wetland functions are impacted or degraded. Primary source of water is groundwater. Wetland buffer is greater than 40%. Wetland is less than 5 acres. Potentially sensitive to future impacts.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No access point to wetland exists. Private property.	
Recreation	Assessment Result	Wetland not appropriate/does not provide recreational opportunity.
Rational:	No access point to site. Nor boat launch. No viewing areas. No hunting.	
Aesthetic Quality	Assessment Result	No viewing area. N/A for Aesthetic Quality.
Rational:	No viewing area. N/A for Aesthetic Quality.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet Hermiston Local Wetland Inventory

Wetland Mapping Code:	B	Date(es) of Fieldwork:	7/10/2012
Size (acres):	6.11	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	Off-site		

Wetland Location: South of E. Theater Lane, and west of Vista Park Mobile Home Estates.

Wetland Viewing: Off-site determination. There was no view of this wetland.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	N/A. Fish habitat is not present.
Water Quality	Wetland's water-quality is impacted or degraded.
Hydrologic Control	Wetlands hydrologic control is impacted or degraded.
Sensitivity to Impact	Potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high potential for enhancement.
Education	Wetland site is not appropriate for educational use.
Recreation	Wetland not appropriate/does not provide recreational opportunity.
Aesthetic Quality	No viewing area. N/A for Aesthetic Quality.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species
Rational: More than one Cowardin class. Dominated by emergent vegetation. Adjacent land is mostly open space. No connections to Water Quality limited streams. Wetlands buffer is greater than 40%. No upstream reaches.		
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational: Primary water source is groundwater. Moderate vegetation cover. Adjacent land use is open space. Evidence of flooding or ponding during portion of open season. No surface water connection to other wetlands/streams.		
Hydrologic Control	Assessment Result	Wetlands hydrologic control is impacted or degraded.
Rational: Wetland within an enclosed basin. Wetland has no outlet. Dominated by emergent vegetation or wet meadow. No downstream, down-slope or upslope of wetland. Wetland is a depression. Wetland is more than 5 acres in size.		
Sensitivity to Impact	Assessment Result	Potentially sensitive to future impacts.
Rational: Hermiston ditch is south of wetland, human modifications. Water is taken out of Hermiston ditch. Dominant surrounding land use is open space zoned for developed uses. Emergent vegetation or wet meadow.		
Enhancement Potential	Assessment Result	Wetland has high potential for enhancement
Rational: Wetland functions are impacted or degraded. Primary source of water is groundwater. Wetland buffer is greater than 40%. Wetland is less than 5 acres. Potentially sensitive to future impacts.		
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational: No access to site is allowed. No access point to wetland exists. Private property.		
Recreation	Assessment Result	Wetland not appropriate/does not provide recreational opportunity.
Rational: No access point to site. Nor boat launch. No viewing areas. No hunting.		
Aesthetic Quality	Assessment Result	No viewing area. N/A for Aesthetic Quality.
Rational: No viewing area. N/A for Aesthetic Quality.		

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Hermiston Local Wetland Inventory

Wetland Mapping Code:	C	Date(es) of Fieldwork:	7/10/2012
Size (acres):	12.77	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	Off-site		

Wetland Location: South of E. Elm Avenue, between NE 4th St and NE 10th St.

Wetland Viewing: Off-site determination. Wetland visible from E Elm Avenue.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	N/A. Fish habitat is not present.
Water Quality	Wetland's water-quality is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high potential for enhancement.
Education	Wetland site is not appropriate for educational use.
Recreation	Wetland not appropriate/does not provide recreational opportunity.
Aesthetic Quality	The wetland is considered to be pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species
Rational:	More than one cowardian class. Dominated by emergent vegetation. Adjacent land is mostly open space. No connections to Water Quality limited streams. Wetlands buffer is greater than 40%. No upstream reaches.	
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source is groundwater/leakage from canal. High vegetation cover. Adjacent land use is open space. No evidence of flooding or ponding during portion of open season. No surface water connection to other wetlands/streams.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland within an enclosed basin. Wetland has no outlet. Dominated by emergent vegetation or wet meadow. No downstream, down-slope or upslope of wetland. Wetland is a depression.	
Sensitivity to Impact	Assessment Result	Potentially sensitive to future impacts.
Rational:	Hermiston ditch is north of wetland, human modifications. Water is taken out of Hermiston ditch. Dominant surrounding land use is open space zoned for developed uses.	
Enhancement Potential	Assessment Result	Wetland has high potential for enhancement
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is greater 5 than acres. Wetland is potentially sensitive to impacts.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No access point to wetland exists. Visibility was from a high traffic public road. Public access can't be created easily.	
Recreation	Assessment Result	Wetland not appropriate/does not provide recreational opportunity.
Rational:	No access point to site. Nor boat launch. No viewing areas. No hunting.	
Aesthetic Quality	Assessment Result	Wetland is considered pleasing.
Rational:	Viewing area was from a trafficked public road. Predominantly PEM wetland. Open space surrounding. No unnatural odors. Continuous traffic is audible.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	D	Date(es) of Fieldwork:	7/10/2012
Size (acres):	7.77	Investigator:	MRS
Wetland Types:	PEM, PFO		
Data Sheet #:	Off-site		

Wetland Location: South of E. Elm Avenue, between NE 4th St and NE 10th St.

Wetland Viewing: Off-site determination. Wetland just south of Wetland C. Barely visible via E. Elm.

Function and Condition Assessment Answers:

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

Results:

Wildlife	The wetland provides habitat for some wildlife species.
Fish	The wetland's fish habitat is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact	Wetland is potentially sensitive to impact.

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland is not appropriate for education.
Recreation	Wetland is not appropriate/provide recreational opportunities.
Aesthetic Quality	Wetland is considered pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species
Rational:	More than one Cowardin class. Dominated by emergent vegetation. Adjacent land is mostly open space. No connections to Water Quality limited streams. Wetlands buffer is greater than 40%. No upstream reaches.	
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source is groundwater/leakage from canal. Area became drier after a portion of canal was piped. High vegetation cover. Adjacent land use is open space. No evidence of flooding or ponding during portion of open season. No surface water connection to other wetlands/streams.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland within an enclosed basin. Wetland has no outlet. Dominated by emergent vegetation or wet meadow. No downstream, down-slope or upslope of wetland. Wetland is a depression.	
Sensitivity to Impact	Assessment Result	Potentially sensitive to future impacts.
Rational:	Hermiston ditch is north of wetland, human modifications. Water is taken out of Hermiston ditch. Dominant surrounding land use is open space zoned for developed uses.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is greater than 5 acres. Wetland is potentially sensitive to impacts.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No access point to wetland exists. Visibility was from a high traffic public road. Public access can't be created easily.	
Recreation	Assessment Result	Wetland not appropriate/does not provide recreational opportunity.
Rational:	No access point to site. Nor boat launch. No viewing areas. No hunting.	
Aesthetic Quality	Assessment Result	Wetland is considered pleasing.
Rational:	Viewing area was from a trafficked public road. Predominantly PEM wetland. Open space surrounding. No unnatural odors. Continuous traffic is audible.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	E1	Date(es) of Fieldwork:	7/10/2012
Size (acres):	12.8	Investigator:	MRS
Wetland Types:	PFO, PEM		
Data Sheet #:	7, 8, 27-32		

Wetland Location: North of McConnel Ln and NW 15th St. corner. West of 11th St. East of Umatilla River.

Wetland Viewing: Mostly onsite.

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	Wetland not appropriate/does not provide recreational opportunities.
Aesthetic Quality	Wetland is moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	Two Cowardin classes. Dominated by woody vegetation. Adjacent land is open space. Surface water connections via ditches, connected to other wetlands via ditches within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	50% or more shaded. Portions of river are modified. Less than 10% in stream structures. Water quality limited. Open space surrounding wetland. Sensitive species are in Umatilla River during some time of the year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is surface flow, from ditches. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is open space. Moderate degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is intact.
Rational:	Wetland located within 100-year flood plain. Dominated by woody vegetation. Unable to determine evidence of flooding. Outlet has unrestricted flow. Downstream is open space. Upstream use urbanizing.	
Sensitivity to Impact	Assessment Result	Wetland is sensitive to future impacts.
Rational:	Stream bank modified by humans less than 1 mile above wetland. Water being taken out irrigation. Water quality limited adjacent to wetland. Open space existing and zoned. Woody vegetation.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is larger than 5 ac. Wetland is sensitive to impacts. Wetland has surface flow via assumed ditches.	
Education	Assessment Result	Wetland site not appropriate for educational use.
Rational:	No access allowed. Wetland provides habitat for some wildlife species. No public access. No access for limited mobility individuals.	
Recreation	Assessment Result	Wetland is not appropriate/does not provide recreational opportunities.
Rational:	No access point exists, or access point is hazardous. No trails. Provides some habitat for wildlife. Fishing is allowed on river. No hunting.	
Aesthetic Quality	Assessment Result	Wetland is moderately pleasing.
Rational:	Two Cowardin classes. Less than 25% visible from viewing location. Open space surrounded. Unpleasant odors due to nearby sewage treatment plant. Some traffic noise.	

Oregon Freshwater Wetland Assessment Methodology
(Revised Edition, April 1996)

Wetland Assessment Summary Sheet
Hermiston Local Wetland Inventory

Wetland Mapping Code: E2 Date(es) of Fieldwork: 7/10/2012
 Size (acres): 2.12 Investigator: MRS
 Wetland Types: PEM
 Data Sheet #: Off-site
 Wetland Location: East end of Hermiston Drain, where it enters Hermiston's urban growth boundary. West of Ott Road.
 Wetland Viewing: Off-site determination. Viewed from Ott Road.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control function is lost or not present.
Sensitivity to Impact	Wetland is sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	Wetland is not appropriate/does not provide recreational opportunities.
Aesthetic Quality	Wetland is considered moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides diverse habitat.
Rational:	More than one Cowardin class. Dominated by emergent vegetation. Adjacent land is mostly open space. Wetland connected by surface water to Hermiston Drain. Less than 0.5 acres open water. Wetland buffer is greater than 40%. No upstream reaches.	
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source is surface flow from Hermiston Drain. High vegetation cover. Adjacent land use is open space. No evidence of flooding or ponding during portion of open season. Water quality limited upstream.	
Hydrologic Control	Assessment Result	Wetland hydrologic control function is lost or not present.
Rational:	Wetland within an enclosed basin. Wetland has no outlet. Dominated by emergent vegetation or wet meadow. No downstream, down-slope or upslope of wetland. Wetland is a depression.	
Sensitivity to Impact	Assessment Result	Wetland is sensitive to future impacts.
Rational:	Hydrologic human modifications. Water is taken out of Hermiston ditch. Water quality limited upstream. Dominant surrounding land use is open space. Zoned for developed uses. Emergent vegetation or wet meadow.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is potentially sensitive to impacts.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No access point to wetland exists. Visibility was from a high traffic public road. Public access can't be created easily.	
Recreation	Assessment Result	Wetland not appropriate/does not provide recreational opportunity.
Rational:	No access point to site. Nor boat launch. No viewing areas. No hunting.	
Aesthetic Quality	Assessment Result	Wetland is considered pleasing.
Rational:	Viewing area was from a trafficked public road. Predominantly PEM wetland. Open space surrounding. No unnatural odors. Continuous traffic is audible.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Hermiston Local Wetland Inventory

Wetland Mapping Code:	F1	Date(es) of Fieldwork:	7/10/2012
Size (acres):	14.68	Investigator:	MRS
Wetland Types:	PFO		
Data Sheet #:	Off-site		

Wetland Location: East of S. Townsend Rd where East Main St. T's into S. Townsend Rd.

Wetland Viewing: Off-site determination. Partially viewed from S. Townsend Rd.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Wetland is sensitive to future impacts.

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

Results:

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

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	More than one cowardian class. Dominated by woody vegetation. Adjacent land is mostly agriculture. Wetland is within an irrigated pasture, within a drainage system. Wetlands buffer is greater than 40%.	
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is surface flow from irrigated pastures. No evidence of flooding or ponding during portion of open season. Water quality limited upstream. Land use within 500 ft of wetland edge is agriculture.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland not within an enclosed basin. Wetland outflow into the ground. Dominated by woody vegetation. Dominant land use downstream of wetland is development. Surrounded by agricultural fields.	
Sensitivity to Impact	Assessment Result	Wetland is sensitive to impacts.
Rational:	Hydrologic human modifications. Water is taken out of Hermiston ditch. Water quality limited upstream. Dominant surrounding land use is open space. Zoned for developed uses. Emergent vegetation or wet meadow.	
Enhancement Potential	Assessment Result	Wetland has moderate potential for enhancement.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is greater than 5 acres. Wetland is potentially sensitive to impacts. Wetland has surface flow from irrigation. Wetland has restricted flow and cannot be restored.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No access point to wetland exists. Visibility was from a high traffic public road. Public access can't be created easily.	
Recreation	Assessment Result	Wetland has potential to provide recreational opportunities.
Rational:	Public access point is a maintained road, however wetland is on private property. No boat launch. No viewing areas. No hunting.	
Aesthetic Quality	Assessment Result	Wetland is considered pleasing.
Rational:	Viewing area was from a trafficked public road. Predominantly PFO wetland. Open space surrounding. No unnatural odors. Continuous traffic is audible.	

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Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	F2	Date(es) of Fieldwork:	7/10/2012
Size (acres):	32.37	Investigator:	MRS
Wetland Types:	PFO, PEM		
Data Sheet #:	45, 46, 9-12, 57, 58		

Wetland Location: North of CO 1238 Rd, west of NW 13th St., east of Umatilla River.

Wetland Viewing: Mostly onsite.

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland has education uses.
Recreation	Wetland provides recreational opportunities.
Aesthetic Quality	Wetland is considered pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	Two Cowardin classes. Dominated by woody vegetation. Adjacent land is open space. Less than 0.5 acres open water. Surface water connections via ditches, unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	50% or more shaded. Portions of river are modified. Less than 10% in stream structures. Water quality limited. Open space surrounding wetland. Sensitive species are in Umatilla River during some time of the year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is surface flow, from ditches. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is open space. Moderate degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is intact.
Rational:	Wetland located within 100-year flood plain. Dominated by woody vegetation. Unable to determine evidence of flooding. Outlet has unrestricted flow. Downstream is open space. Upstream use urbanizing.	
Sensitivity to Impact	Assessment Result	Wetland is sensitive to future impacts.
Rational:	Stream bank modified by humans less than 1 mile above wetland. Water being taken out irrigation. Water quality limited adjacent to wetland. Open space existing and zoned. Woody vegetation.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is larger than 5 ac. Wetland is sensitive to impacts. Wetland has surface flow via assumed ditches.	
Education	Assessment Result	Wetland has educational uses.
Rational:	Wetland open to public. No hazards. Wetland provides habitat for some species. Public access created easily. Maintained access within 250 ft of wetland. Viewing for individuals with limited mobility.	
Recreation	Assessment Result	Wetland provides recreational opportunities.
Rational:	Maintained access point. No boat launching area. Developed/maintained trails. Wetland provides some habitat for wildlife. Fishing allowed on Umatilla River. No hunting.	
Aesthetic Quality	Assessment Result	Wetland is considered pleasing.
Rational:	Two Cowardin classes visible. Greater than 50% wetland visible from viewing areas. No visual distracters. Open Space. Natural odors. Mostly naturally occurring sounds.	

Oregon Freshwater Wetland Assessment Methodology

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Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	G	Date(es) of Fieldwork:	7/10/2012
Size (acres):	5.16	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	On-site 1, 2, 3, 4, 5, 6		

Wetland Location: Avril Lane

Wetland Viewing: On-site determination.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Wetland is potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has moderate potential for enhancement.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational opportunities.
Aesthetic Quality	Wetland is considered pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational: One cowardian class. Dominated by emergent vegetation or wet meadow. Adjacent land is mostly agriculture. No open water. No surface water connections. Wetlands buffer is greater than 40%.		
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational: Primary water source of water is groundwater, most likely from A-line Canal. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is agriculture.		
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational: Wetland not within an enclosed basin. Wetland outflow into the ground. Dominated by emergent vegetation or wet meadow. Dominant land use downstream of wetland is agriculture.		
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to future impacts.
Rational: Hydrologic human modifications. Water is taken out of A-line Canal. Dominant surrounding land use is agriculture. Zoned for developed uses. Emergent vegetation or wet meadow.		
Enhancement Potential	Assessment Result	Wetland has moderate potential for enhancement.
Rational: Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is greater than 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.		
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational: No access to site is allowed. No viewing spot for limited mobility individuals.		
Recreation	Assessment Result	Wetland not appropriate/does not provide recreational opportunity.
Rational: No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting. Private property.		
Aesthetic Quality	Assessment Result	Wetland is considered pleasing.
Rational: No site access to public. Permission was received to gather data.		

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	I	Date(es) of Fieldwork:	7/10/2012
Size (acres):	3.54	Investigator:	MRS
Wetland Types:	PFO		
Data Sheet #:	Off-site		

Wetland Location: Adjacent to Maxwell Canal, west of Townsend Rd and south of Hurlburt Ave.

Wetland Viewing: Off-site

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Wetland is potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has moderate potential for enhancement.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational opportunities.
Aesthetic Quality	The wetland is considered to be moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	Two Cowardin classes. Dominated by woody vegetation and emergent meadow. Adjacent land is mostly open space. No open water. No surface water connections. Wetlands buffer is greater than 40%.	
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is groundwater, most likely from Maxwell Canal. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is open space.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland not within an enclosed basin. Wetland outflow into the ground. Dominated by emergent vegetation or wet meadow. Dominant land use downstream of wetland is developed uses.	
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to future impacts.
Rational:	Hydrologic human modifications. Water is taken out of Maxwell Canal. Dominant surrounding land use is open space. Zoned for developed uses. Emergent vegetation or wet meadow.	
Enhancement Potential	Assessment Result	Wetland has moderate potential for enhancement.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals.	
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunity.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting.	
Aesthetic Quality	Assessment Result	The wetland is considered to be moderately pleasing.
Rational:	Two Cowardin classes are visible from viewing point. Less than 25% of wetland can be seen. Open space surrounding. No unnatural odors or sounds.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	K	Date(es) of Fieldwork:	7/10/2012
Size (acres):	1.44	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	Off-site		

Wetland Location: Between the airport and the A Line Canal.

Wetland Viewing: Off-site, no access/viewing location.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Wetland is potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high potential for enhancement.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational opportunities.
Aesthetic Quality	The wetland is considered to be moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational: One Cowardin class. Dominated by emergent meadow. Adjacent land is mostly agriculture. No open water. No surface water connections, but other unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%.		
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational: Primary water source of water is groundwater, most likely from US Feed Canal. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is agriculture. Low degree of vegetation cover.		
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational: Wetland within an enclosed basin. Dominated by emergent vegetation or wet meadow. No evidence of flooding. No downstream or down slope edge of wetland. Dominant land use in watershed upstream is agriculture.		
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to future impacts.
Rational: Hydrologic human modifications. Water is taken out of the US Feed Canal. Dominant surrounding land use is agriculture. Zoned for developed uses. Emergent vegetation or wet meadow.		
Enhancement Potential	Assessment Result	Wetland has high potential for enhancement.
Rational: Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.		
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational: No access to site is allowed. No viewing spot for limited mobility individuals.		
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunity.
Rational: No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting.		
Aesthetic Quality	Assessment Result	The wetland is considered to be moderately pleasing.
Rational: Site not visible from access or viewing area. Aerials show surrounding area to be open space.		

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	L	Date(es) of Fieldwork:	7/10/2012
Size (acres):	0.96	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	Off-site		

Wetland Location: North of US Feed Canal and west of HWY 395

Wetland Viewing: Off-site, no access/viewing location.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Wetland is potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational opportunities.
Aesthetic Quality	The wetland is considered to be moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	One Cowardin class. Dominated by woody vegetation. Adjacent land is mostly agriculture. No open water. No surface water connections, but other unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%.	
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is groundwater, most likely from US Feed Canal. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is agriculture. High degree of vegetation cover.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland within an enclosed basin. Dominated by woody vegetation. No evidence of flooding. No downstream or down slope edge of wetland. Dominant land use in watershed upstream is agriculture.	
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to future impacts.
Rational:	Hydrologic human modifications. Water is taken out of the US Feed Canal. Dominant surrounding land use is agriculture. Zoned for developed uses. Dominant woody vegetation.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals.	
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunity.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting.	
Aesthetic Quality	Assessment Result	The wetland is considered to be moderately pleasing.
Rational:	Site not visible from access or viewing area. Aerials show surrounding area to be open space.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	O	Date(es) of Fieldwork:	7/10/2012
Size (acres):	1.04	Investigator:	MRS
Wetland Types:	PFO		
Data Sheet #:	Off-site		

Wetland Location: North of Maxwell Canal, east of where canal crosses the railroad.

Wetland Viewing: Off-site, no access/viewing location.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Wetland is potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high potential for enhancement.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational opportunities.
Aesthetic Quality	The wetland is considered to be moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational: One Cowardin class. Dominated by woody vegetation. Adjacent land is mostly agriculture. No open water. No surface water connections, but other unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%.		
Fish Habitat	Assessment Result	N/A. Fish habitat is not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational: Primary water source of water is groundwater, most likely from US Feed Canal. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is agriculture. High degree of vegetation cover.		
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational: Wetland within an enclosed basin. Dominated by woody vegetation. No evidence of flooding. No downstream or down slope edge of wetland. Dominant land use in watershed upstream is agriculture.		
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to future impacts.
Rational: Hydrologic human modifications. Water is taken out of the US Feed Canal. Dominant surrounding land use is agriculture. Zoned for developed uses. Dominant woody vegetation.		
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational: Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.		
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational: No access to site is allowed. No viewing spot for limited mobility individuals.		
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunity.
Rational: No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting.		
Aesthetic Quality	Assessment Result	The wetland is considered to be moderately pleasing.
Rational: Site not visible from access or viewing area. Aerials show surrounding area to be open space.		

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Hermiston Local Wetland Inventory

Wetland Mapping Code:	Q	Date(es) of Fieldwork:	7/10/2012
Size (acres):	1.01	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	21, 22		

Wetland Location: Minnehaha Spring, north of Minnehaha Rd, south of Umatilla River.

Wetland Viewing: On-site

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational opportunities.
Aesthetic Quality	Wetland is not pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	One Cowardin class with five or fewer species. Emergent vegetation. Low interspersions. No open water. Connected to river. Water quality limited. Connected to another wetland within 3 mile radius. Land use within 500 ft is open space.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	Less than 50% shaded. Portions of river modified. Less than 10% woody debris. Water quality limited. Open space adjacent. Sensitive species at some time during year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is spring fed. No evidence of flooding or ponding. Land use within 500 ft of wetland edge is open space. High degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Not within 100 year floodplain. No evidence of flooding. Between .5-5 acres. Unrestricted flow from wetland. Dominant existing land use down stream is open space. Dominant upstream use urban.	
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to impacts.
Rational:	Stream flow of river has been modified by humans less than mile above wetland. Water is taken out of the Umatilla River. Dominant surrounding land use is open space. Zoned for open space. Dominant emergent vegetation. River is water quality limited.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals. Steep slope to spring.	
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunities.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. Fishing is allowed on the Umatilla River. No hunting.	
Aesthetic Quality	Assessment Result	Wetland is not pleasing.
Rational:	One Cowardin class visible from viewing area. Less than 25% of wetland seen from viewing area. No visual detractors. Open space. Natural odors. Some traffic and background noises.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	R	Date(es) of Fieldwork:	7/10/2012
Size (acres):	0.7	Investigator:	MRS
Wetland Types:	PFO		
Data Sheet #:	Off-site		

Wetland Location: Southern bank of the Umatilla River. North of Minnehaha Rd, along western UGB boundary.
 Wetland Viewing: Off-site, no access/viewing location.

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland has potential to provide recreational opportunities.
Aesthetic Quality	The wetland is considered to be moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	One Cowardin class. Dominated by woody vegetation. Adjacent land is mostly open space. No open water. No surface water connections, but other unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	Less than 50% shaded. Natural channel. Less than 10% woody debris. Water quality limited. Open space adjacent. Sensitive species at some time during year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is groundwater, most likely from seep from side of slope. Evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is open space. Moderate degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland located within 100-year flood plain. Dominated by woody vegetation. Evidence of flooding. Unrestricted flow out of wetland. Downstream use is open space. Upstream use forested.	
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to future impacts.
Rational:	Stream flow of river has not been modified by humans less than 1 mile above wetland. Water is taken out of the Umatilla River. Dominant surrounding land use is open space. Zoned for developed uses. Dominant woody vegetation. River is water quality limited.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals.	
Recreation	Assessment Result	The wetland has potential to provide recreational opportunities.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. Fishing is allowed on the Umatilla River. No hunting.	
Aesthetic Quality	Assessment Result	The wetland is considered to be moderately pleasing.
Rational:	Site not visible from access or viewing area. Area can only be assessed by aerial images.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Hermiston Local Wetland Inventory

Wetland Mapping Code:	S	Date(es) of Fieldwork:	7/10/2012
Size (acres):	4.23	Investigator:	MRS
Wetland Types:	PFO		
Data Sheet #:	Off-site		

Wetland Location: Eastern bank of Umatilla River. West of Rivercrest Ln.

Wetland Viewing: Off-site, no access/viewing location.

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is impacted or degraded.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is impacted or degraded.
Sensitivity to Impact	Wetland is sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland has potential to provide recreational opportunities.
Aesthetic Quality	The wetland is considered to be moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	Two Cowardin classes. Dominated by woody vegetation. Adjacent land is mostly open space. No open water. No surface water connections, but other unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	Less than 50% shaded. Natural channel. Less than 10% woody debris. Water quality limited. Open space adjacent. Sensitive species at some time during year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is groundwater, most likely from seep from side of slope. Evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is open space. Moderate degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland located within 100-year flood plain. Dominated by woody vegetation. Evidence of flooding. Unrestricted flow out of wetland. Downstream use is open space. Upstream use forested.	
Sensitivity to Impact	Assessment Result	Wetland is sensitive to impact.
Rational:	Stream flow of river has been modified by humans less than 1 mile above wetland. Water is taken out of the Umatilla River. Dominant surrounding land use is open space. Zoned for developed uses. Dominant woody vegetation. River is water quality limited.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is sensitive to impacts. Wetland has groundwater hydrology.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals.	
Recreation	Assessment Result	The wetland has potential to provide recreational opportunities.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. Fishing is allowed on the Umatilla River. No hunting.	
Aesthetic Quality	Assessment Result	The wetland is considered to be moderately pleasing.
Rational:	Site not visible from access or viewing area. Area can only be assessed by aerial images.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	T	Date(es) of Fieldwork:	7/10/2012
Size (acres):	1.73	Investigator:	MRS
Wetland Types:	PFO, PEM		
Data Sheet #:	23		

Wetland Location: Eastern bank of Umatilla River. South of W. Alleluia Ave.

Wetland Viewing: Off-site, seen from adjoining property.

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland has potential to provide recreational opportunities.
Aesthetic Quality	The wetland is considered pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	Two Cowardin classes. Dominated by woody vegetation. Adjacent land is mostly developed. No open water. No surface water connections, but other unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	Less than 50% shaded. Natural channel. Less than 10% woody debris. Water quality limited. Open space adjacent. Sensitive species at some time during year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is groundwater, most likely from seep from side of slope. Evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is open space. Moderate degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is intact.
Rational:	Wetland located within 100-year flood plain. Dominated by woody vegetation. Evidence of flooding. Unrestricted flow out of wetland. Downstream use is open space. Upstream use is urban or urbanizing.	
Sensitivity to Impact	Assessment Result	Wetland is sensitive to impact.
Rational:	Stream flow of river has been modified by humans less than 1 mile above wetland. Water is taken out of the Umatilla River. Dominant surrounding land use is open space. Zoned for developed uses. Dominant woody vegetation. River is water quality limited.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is sensitive to impacts. Wetland has groundwater hydrology.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals.	
Recreation	Assessment Result	The wetland has potential to provide recreational opportunities.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. Fishing is allowed on the Umatilla River. No hunting.	
Aesthetic Quality	Assessment Result	The wetland is considered pleasing.
Rational:	Site not accessible. Viewing from adjacent property. Two Cowardin classes. No visual distracters. Area manipulated by people. Natural odors. Some traffic and background noise.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			

Wetland Mapping Code:	U	Date(es) of Fieldwork:	7/10/2012
Size (acres):	1.11	Investigator:	MRS
Wetland Types:	PEM		
Data Sheet #:	Off-site		

Wetland Location: Eastern bank of Umatilla River. Northwest of Riverfront Park.

Wetland Viewing: Off-site, no access/viewing location.

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland has potential to provide recreational opportunities.
Aesthetic Quality	The wetland is considered to be moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	One Cowardin class. Dominated by woody vegetation. Adjacent land is mostly open space. No open water. No surface water connections, but other unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	Less than 50% shaded. Natural channel. Less than 10% woody debris. Water quality limited. Open space adjacent. Sensitive species at some time during year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is groundwater, most likely from seep from side of slope. Evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is open space. Moderate degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Wetland located within 100-year flood plain. Dominated by woody vegetation. Evidence of flooding. Unrestricted flow out of wetland. Downstream use is open space. Upstream use forested.	
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to impacts.
Rational:	Stream flow of river has not been modified by humans less than mile above wetland. Water is taken out of the Umatilla River. Dominant surrounding land use is open space. Zoned for developed uses. Dominant woody vegetation. River is water quality limited.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has groundwater hydrology.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals.	
Recreation	Assessment Result	The wetland has potential to provide recreational opportunities.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. Fishing is allowed on the Umatilla River. No hunting.	
Aesthetic Quality	Assessment Result	The wetland is considered to be moderately pleasing.
Rational:	Site not visible from access or viewing area. Area can only be assessed by aerial images.	

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	W	Date(es) of Fieldwork:	7/10/2012
Size (acres):	0.89	Investigator:	MRS
Wetland Types:	PFO		
Data Sheet #:	Off-site		

Wetland Location: West of W Elm Avenue. East of Umatilla River.

Wetland Viewing: Off-site, no access/viewing location.

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is intact.
Sensitivity to Impact	Wetland is potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational activities.
Aesthetic Quality	The wetland is moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational: One Cowardin class. Dominated by woody vegetation. Adjacent land is agriculture. No open water. No surface water connections, unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.		
Fish Habitat	Assessment Result	Wetland's fish habitat is lost or not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational: Primary water source of water is surface flow, most likely from ditches. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is agriculture. High degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.		
Hydrologic Control	Assessment Result	Wetland's hydrologic control is intact.
Rational: Wetland located within 100-year flood plain. Dominated by woody vegetation. Unable to determine evidence of flooding. No outlet. No downstream. Upstream use urbanizing.		
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to impacts.
Rational: Water is taken out via ditches. Dominant surrounding land use is agriculture. Zoned for developed uses. Dominant woody vegetation. River is water quality limited.		
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational: Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has surface flow via assumed ditches.		
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational: No access to site is allowed. No viewing spot for limited mobility individuals.		
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunities.
Rational: No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting.		
Aesthetic Quality	Assessment Result	The wetland is moderately pleasing.
Rational: Site not visible from access or viewing area. Area can only be assessed by aerial images.		

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Hermiston Local Wetland Inventory

Wetland Mapping Code:	X	Date(es) of Fieldwork:	7/10/2012
Size (acres):	2.98	Investigator:	MRS
Wetland Types:	PFO		
Data Sheet #:	Off-site		

Wetland Location: Northwest of W Elm Avenue. East of Umatilla River. North of Wetland W.

Wetland Viewing: Off-site, no access/viewing location.

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

Wildlife	Wetland provides habitat for some wildlife species.
Fish	Wetland's fish habitat function is lost or not present.
Water Quality	Wetland's water-quality function is impacted or degraded.
Hydrologic Control	Wetland's hydrologic control is intact.
Sensitivity to Impact	Wetland is potentially sensitive to future impacts.

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational activities.
Aesthetic Quality	The wetland is moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational: One Cowardin class. Dominated by woody vegetation. Adjacent land is agriculture. No open water. No surface water connections, unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.		
Fish Habitat	Assessment Result	Wetland's fish habitat is lost or not present.
Rational:		
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational: Primary water source of water is surface flow, most likely from ditches. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is agriculture. High degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.		
Hydrologic Control	Assessment Result	Wetland's hydrologic control is intact.
Rational: Wetland located within 100-year flood plain. Dominated by woody vegetation. Unable to determine evidence of flooding. No outlet. No downstream. Upstream use urbanizing.		
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to impacts.
Rational: Water is taken out via ditches. Dominant surrounding land use is agriculture. Zoned for developed uses. Dominant woody vegetation. River is water quality limited.		
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational: Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has surface flow via assumed ditches.		
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational: No access to site is allowed. No viewing spot for limited mobility individuals.		
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunities.
Rational: No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting.		
Aesthetic Quality	Assessment Result	The wetland is moderately pleasing.
Rational: Site not visible from access or viewing area. Area can only be assessed by aerial images.		

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	Y	Date(es) of Fieldwork:	7/10/2012
Size (acres):	2.18	Investigator:	MRS
Wetland Types:	PFO, OW		
Data Sheet #:	Off-site		

Wetland Location: West of McConnel Ln terminus. West of NW 15th St. East of Umatilla River

Wetland Viewing: Off-site, no access/viewing location.

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has high enhancement potential.
Education	Wetland site is not appropriate for educational use.
Recreation	The wetland is not appropriate/does not provide recreational activities.
Aesthetic Quality	The wetland is moderately pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	One Cowardin class. Dominated by woody vegetation. Adjacent land is agriculture. More than an acre open water. Surface water connections via ditches, unconnected wetlands within 3 mile radius. Wetlands buffer is greater than 40%. Upstream reach listed water quality limited.	
Fish Habitat	Assessment Result	Wetlands fish habitat is impacted or degraded.
Rational:	Cannot determine depth. Less than 10% submerged vegetation. Less than 20% shade. Umatilla River is water quality limited. Adjacent land use is agriculture. N/A on fish species. No site access.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water is surface flow, most likely from ditches. No evidence of flooding or ponding during portion of open season. Land use within 500 ft of wetland edge is agriculture. High degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is intact.
Rational:	Wetland located within 100-year flood plain. Dominated by woody vegetation. Unable to determine evidence of flooding. No outlet. No downstream. Upstream use urbanizing.	
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to impacts.
Rational:	Water is taken out via ditches. Dominant surrounding land use is agriculture. Zoned for developed uses. Dominant woody vegetation. River is water quality limited.	
Enhancement Potential	Assessment Result	Wetland has high enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has surface flow via assumed ditches.	
Education	Assessment Result	Wetland site is not appropriate for educational use.
Rational:	No access to site is allowed. No viewing spot for limited mobility individuals.	
Recreation	Assessment Result	The wetland is not appropriate/does not provide recreational opportunities.
Rational:	No access point. No boat launch. No trails or viewing areas. Provides some habitat for wildlife. No fishing. No hunting.	
Aesthetic Quality	Assessment Result	The wetland is moderately pleasing.
Rational:	Site not visible from access or viewing area. Area can only be assessed by aerial images.	

Oregon Freshwater Wetland Assessment Methodology
(Revised Edition, April 1996)

Wetland Assessment Summary Sheet			
Hermiston Local Wetland Inventory			
Wetland Mapping Code:	Z	Date(es) of Fieldwork:	7/10/2012
Size (acres):	2.01	Investigator:	MRS
Wetland Types:	PEM, PFO		
Data Sheet #:	13, 14, 15, 47		

Wetland Location: North of corner to SW 23rd St. North of Co 1238 Rd. Northwest of Wetland F2.
Wetland Viewing: On-site

Wetland of Special Interest

Function and Condition Assessment Answers:

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

Results:

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

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

Results:

Enhancement Potential	Wetland has moderate enhancement potential.
Education	Wetland has educational uses.
Recreation	Wetland provides recreational opportunities.
Aesthetic Quality	Wetland is considered pleasing.

Wildlife Habitat	Assessment Result	Wetland provides habitat for some wildlife species.
Rational:	One Cowardin class with five or fewer species. Emergent vegetation. Low interspersion. Less than .5 acres open water. Connected to river. Water quality limited. Connected to another wetland within 3 mile radius. Land use within 500 ft is open space.	
Fish Habitat	Assessment Result	Wetland's fish habitat is impacted or degraded.
Rational:	Less than 50% shaded. Portions of river modified.. Less than 10% woody debris. Water quality limited. Open space adjacent. Sensitive species at some time during year.	
Water Quality	Assessment Result	Wetland's water-quality is impacted or degraded.
Rational:	Primary water source of water a hole from a pipe. Evidence of flooding or ponding. Land use within 500 ft of wetland edge is open space. Moderate degree of vegetation cover. Adjacent to Umatilla River which is water quality limited.	
Hydrologic Control	Assessment Result	Wetland's hydrologic control is impacted or degraded.
Rational:	Within 100 year floodplain. Evidence of flooding. Between .5 and 5 acres. Unrestricted flow. Emergent vegetation. Dominant land use within 500 feet of wetland is open space. Dominant land use in watershed upstream from assessment area is urbanizing.	
Sensitivity to Impact	Assessment Result	Wetland is potentially sensitive to impacts.
Rational:	Stream flow of river has been modified by humans less than mile above wetland. Water is taken out of the Umatilla River. Dominant surrounding land use is open space. Zoned for open space. Dominant emergent vegetation. River is water quality limited.	
Enhancement Potential	Assessment Result	Wetland has moderate enhancement potential.
Rational:	Wetland functions are impacted or degraded. Wetland buffer is greater than 40%. Wetland is between .5 and 5 acres. Wetland is potentially sensitive to impacts. Wetland has surface flow, including ditches.	
Education	Assessment Result	Wetland has educational uses.
Rational:	Wetland is open to public. No visible hazards. Public access exists or is easily created. Access within 250 feet of wetland edge. Viewing spot for individuals with limited mobility.	
Recreation	Assessment Result	Wetland provides recreational opportunities.
Rational:	Maintained access point. No boat access. Developed trails. Provides some habitat from some wildlife species. Fishing on the Umatilla River. No hunting allowed.	
Aesthetic Quality	Assessment Result	Wetland is not pleasing.
Rational:	One Cowardin class visible from viewing area. Less than 25% of wetland seen from viewing area. No visual detractors. Open space. Natural odors. Some traffic and background noises.	

APPENDIX F: SIGNIFICANT WETLAND DETERMINATION SHEETS



Locally Significant Wetlands Criteria
 ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	A	Date(es) of Fieldwork: 7/10/2012
Size (acres):	2.61	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	B	Date(es) of Fieldwork: 7/10/2012
Size (acres):	6.11	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	C	Date(es) of Fieldwork: 7/10/2012
Size (acres):	12.77	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
		YES NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	D	Date(es) of Fieldwork: 7/10/2012
Size (acres):	7.77	Wetland Types: PEM, PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	E1	Date(es) of Fieldwork: 7/10/2012
Size (acres):	12.8	Wetland Types: PFO, PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
LOCALLY SIGNIFICANT WETLAND		

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	E2	Date(es) of Fieldwork: 7/10/2012
Size (acres):	2.12	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
		YES NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	F1	Date(es) of Fieldwork: 7/10/2012
Size (acres):	14.68	Wetland Types: PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	F2	Date(es) of Fieldwork: 7/10/2012
Size (acres):	32.44	Wetland Types: PFO,PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
Locally Significant Wetland		

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	G	Date(es) of Fieldwork: 7/10/2012
Size (acres):	5.16	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

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Hermiston Local Wetland Inventory		
Wetland Mapping Code:	1	Date(es) of Fieldwork: 7/10/2012
Size (acres):	3.54	Wetland Types: PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
		YES NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	K	Date(es) of Fieldwork: 7/10/2012
Size (acres):	1.44	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
		YES NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	L	Date(es) of Fieldwork: 7/10/2012
Size (acres):	0.96	Wetland Types: PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	O	Date(es) of Fieldwork: 7/10/2012
Size (acres):	1.04	Wetland Types: PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	X
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR 141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	Q	Date(es) of Fieldwork: 7/10/2012
Size (acres):	1.01	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
		YES NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR 141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
LOCALLY SIGNIFICANT WETLAND		

Locally Significant Wetlands Criteria
 ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	R	Date(es) of Fieldwork: 7/10/2012
Size (acres):	0.7	Wetland Types: PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		YES NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
LOCALLY SIGNIFICANT WETLAND		

Locally Significant Wetlands Criteria

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Hermiston Local Wetland Inventory				
Wetland Mapping Code:	S	Date(es) of Fieldwork: 7/10/2012		
Size (acres):	4.23	Wetland Types: PFO, PEM		
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		<table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> </table>	YES	NO
YES	NO			
1	Is the wetland artificially created from upland and:			
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X		
b.	Active surface mining or active log ponds	X		
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X		
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X		
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X		
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X		
Exclusion criteria satisfied?		X		
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).				
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X		
2	Is the wetland's <i>fish habitat function intact</i> ?	X		
3	Is the wetland's <i>water quality function intact</i> ?	X		
4	Is the wetland's <i>hydrologic control function intact</i> ?	X		
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X		
6	Does the wetland contain rare plant communities?	X		
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X		
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X		
Mandatory Locally Significant Wetland criteria satisfied?		X		
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.				
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X		
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X		
Optional Locally Significant Wetland criteria satisfied?		X		
LOCALLY SIGNIFICANT WETLAND				

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	T	Date(es) of Fieldwork: 7/10/2012
Size (acres):	1.73	Wetland Types: PFO, PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
LOCALLY SIGNIFICANT WETLAND		

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	U	Date(es) of Fieldwork: 7/10/2012
Size (acres):	1.11	Wetland Types: PEM
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR 141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
LOCALLY SIGNIFICANT WETLAND		

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	W	Date(es) of Fieldwork: 7/10/2012
Size (acres):	0.89	Wetland Types: PFO
Exclusions: Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
Mandatory Locally Significant Criteria: A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
Optional Local Significant Wetland Criteria: Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	X	Date(es) of Fieldwork: 7/10/2012
Size (acres):	2.98	Wetland Types: PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
LOCALLY SIGNIFICANT WETLAND		

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	Y	Date(es) of Fieldwork: 7/10/2012
Size (acres):	2.18	Wetland Types: PFO, OW
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		
	YES	NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X

Locally Significant Wetlands Criteria

ORS 141-086-0350

Hermiston Local Wetland Inventory		
Wetland Mapping Code:	Z	Date(es) of Fieldwork: 7/10/2012
Size (acres):	2.01	Wetland Types: PEM, PFO
<i>Exclusions</i> : Wetland cannot be designated as locally significant if the answer to any of the criteria is "Yes".		YES NO
1	Is the wetland artificially created from upland and:	
a.	Created for the purpose of controlling, storing, or maintaining stormwater	X
b.	Active surface mining or active log ponds	X
c.	Ditches without a free and open connection to natural waters of the state and which do not contain food or game fish	X
d.	Less than one acre in size and created unintentionally as the result of irrigation or construction	X
e.	Created for the purpose of wastewater treatment, cranberry production, farm or stock watering, settling of sediment, cooling industrial water, or a golf course hazard	X
2	Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes per the conditions of OR141-086-0350 1(b)	X
Exclusion criteria satisfied?		X
<i>Mandatory Locally Significant Criteria</i> : A wetland is locally significant if it meets one or more of the criteria listed below (using the OFWAM criteria).		
1	Does the wetland provide <i>diverse wildlife habitat</i> ?	X
2	Is the wetland's <i>fish habitat function intact</i> ?	X
3	Is the wetland's <i>water quality function intact</i> ?	X
4	Is the wetland's <i>hydrologic control function intact</i> ?	X
5	Is the wetland less than 1/4 mile from a water body listed by the DEQ as a water quality limited water body (303(d)list) AND is the <i>water quality function intact, or impacted or degraded</i> ?	X
6	Does the wetland contain rare plant communities?	X
7	Is the wetland inhabited by any federally listed threatened or endangered, or state listed sensitive, threatened or endangered?	X
8	Does the wetland have direct surface water connection to stream segment mapped by ODFW as habitat for indigenous anadromous salmonids AND is the wetland's <i>fish habitat function intact, or impacted or degraded</i> ?	X
Mandatory Locally Significant Wetland criteria satisfied?		X
<i>Optional Local Significant Wetland Criteria</i> : Local governments may identify a wetland as significant if "yes" answered to any of the criteria below.		
1	Does the wetland represent a locally unique native plant community AND provide <i>diverse wildlife habitat or habitat for some species OR has and intact, or impacted or degraded fish habitat function OR has a intact, or impacted or degraded water quality function OR has a intact, or impacted or degraded hydrologic control function.</i>	X
2	Is the wetland publicly owned and used by a school or organization AND does the wetland provide <i>educational uses</i> ?	X
Optional Locally Significant Wetland criteria satisfied?		X
LOCALLY SIGNIFICANT WETLAND		

APPENDIX G: STAFF QUALIFICATIONS

PROJECT TEAM

Schott & Associates staff is comprised of four well qualified and experienced individuals. All have been through wetland delineation training and are proficient in performing wetland delineations. Dr. Schott has 28 years of experience in agency negotiations/consultation.

The project manager was Dr. Martin Schott all project coordination, field work, contract negotiations, public presentations and quality control was performed by Dr. Schott. Data input, wetland assessments, report writing, quality control and editing were performed by all members of the team as needed.

Dr. Martin Schott, Ph.D., PWS is a wetland scientist/plant ecologist/botanist/range scientist with 28 plus years of project experience including: wetland delineation, mitigation, permitting, construction monitoring and mitigation monitoring; threatened and endangered species surveys, botanical surveys, range management and expert testimony. Dr. Schott has extensive experience in the field, data analysis, report writing and scientific presentations. He is familiar with NEPA, CEQA, SEPA and has worked on environmental check-lists and assessments, biological assessments and environmental impact statements. Projects include; electrical facilities, wind farms, general aviation airports, sewer lines, mining, highways, light rail, destination resorts, housing developments, shopping centers, water storage reservoirs, hydroelectric dams, range and wildlife management plants throughout Oregon, Washington, Idaho and much of the southwest. This experience includes three wetland inventories.

*Martin, Schott, Ph.D., PWS
Principal*



**Emerging Small Business
Certification Number: #5130

**Society of Wetland Scientists-PWS
Certified
Certification Number: #122816**

Juniper Tagliabue, Project Manager and field biologist joined Schott & Associates in 2004. She has a Bachelors degree from Lewis & Clark College in Portland, Oregon (1998). Juniper has certified training in wetland delineations, advanced soils and hydrology and plants of the Pacific Northwest. Juniper is proficient in coordinating all phases of project management. Since joining Schott & Associates she has worked on over 100 projects including: wetland determinations, wetland delineations, wetland fill permitting, significant natural resources (Washington County) sensitive lands (Clean Water Services) and significant natural resource overlay (SNRO) (City of Hillsboro). Past field experience includes amphibian and small mammal habitat assessment and species surveys on Mt. St. Helens National Volcanic Monument. In addition she has worked on invasive plant control projects.

