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ENVIRONMENTAL CONSULTANTS

&

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environmental & natural resource consultants

Wetland Delineation Report for 4th & Miller Oregon City Clackamas County, Oregon

EVREN Northwest Project # 1056-16001-01

PREFACE

EVREN Northwest, Inc. (ENW) and Turnstone Environmental Consultants, Inc. (Turnstone) prepared this wetland delineation report for a 0.37-acre study area located in the Canemah District of Oregon City, Clackamas County, Oregon. After an initial site reconnaissance on April 4th, 2016, the wetland delineation was conducted on April 11th, 2016. The findings of this report are based upon information gathered during the field investigation and upon state and federal laws regulating wetland areas. ENW and Turnstone staff utilized the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) along with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, Version 2* (USACE 2010) to conduct wetland delineations.

The wetland boundaries and classifications described in this document represent the best professional judgment of ENW and Turnstone staff. The decisions were based on the environmental circumstances and site conditions at the time of the field visit. Final verification of this wetland delineation is to be made by the appropriate federal, state, and local jurisdictions. Prior to final design or any construction activity on the site is to take place, all appropriate regulatory agencies should be contacted to verify the findings of this report and to obtain appropriate approvals and permits.

ACRONYMS

HGM	Hydrogeomorphic
LWI	Local Wetland Inventory
NWI	National Wetland Inventory
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
PSS	Palustrine Scrub Shrub
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey

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A. LANDSCAPE SETTING AND LAND USE

The study area totals 0.37 acres and includes portions of Tax lots 3101AA3600 & 3101AA3700 within the city of Oregon City, Oregon (*Appendix A-Figures 1 & 2*). The study area is located approximately 1 mile southwest of downtown Oregon City, within the Canemah Historic District. The centroid coordinates for the study area are 45.3452433°, -122.6216245° (WGS 84). The legal description of the study area is NE 1/4 of NE 1/4 of Section 1 in Township 3 South, Range 1 East. The surrounding area is a mix of single family homes and greenspaces. Though residential use is the dominant land use type in the vicinity, some properties dedicated to commercial retail and light industrial are located immediately north of the study area along Highway 99E. Vegetation within the study area is overwhelmingly dominated by Himalayan blackberry (*Rubus armeniacus*). Dense stands of the noxious weed cover nearly the entire study area, though the species was observed to be weakly rooted in moist areas. Moist portions of the study area feature Pacific willow (*Salix lucida*), giant horsetail (*Equisetum telmateia*), water parsley (*Oenanthe sarmentosa*) and tall mannagrass (*Glyceria elata*). Natural vegetation in area surrounding the study area and vicinity is typified by forests dominated by Douglas-fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis*), big-leaf maple (*Acer macrophyllum*), beaked hazelnut (*Corylus cornuta*) and sword fern (*Polystichum munitum*). Oregon white oak (*Quercus garryana*) and Pacific madrone (*Arbutus menziesii*) grow on sunny slopes and canopy gaps, as well as rocky, quick-draining sites where conifer establishment is limited. Just to the west of the study area is the Canemah Bluffs Natural Area, owned and managed by Metro. The Natural Area harbors stands of mature mixed conifer and hardwood forest as well as lithosol and grassland communities dominated by herbaceous species including camas (*Camassia* sp.), large-flowered blue-eyed Mary (*Collinsia grandiflora*), long-stolon sedge (*Carex inops*), sweet vernal grass (*Anthoxanthum odoratum*) and Roemer's fescue (*Festuca roemeri*). Outcrops of Columbia River Basalts are especially evident in these open areas, some of which were scoured of topsoil during Missoula (Bretz) Flood events that occurred towards the late stages of the Pleistocene. The study area is within the Middle Willamette River catchment area (HUC8: 17090007). The terraces and slopes of basalt colluvium backed by bluffs and rolling topography to the south and the relatively narrow river valley occupied by the Willamette River to the north characterize topography of the study area vicinity.

B. SITE ALTERATIONS

The study area has been altered from a natural state most notably by the historic construction of local road infrastructure. Construction of roads that surround the study area have modified native slope contours and required the placement of fill to create the roadbed. Changes in native slope contours and the placement of fill are presumed to have had an effect on the movement and residency of surface water in the study area. The introduction of non-native plant species and alteration of natural disturbance regimes since European settlement of the area has significantly altered the structure and composition of area vegetation.

C. PRECIPITATION DATA

The site was investigated on April 11th, 2016. Precipitation data is derived from the weather station at the Oregon City, Oregon (NOAA 2016 GHCND:USC00356334).

Table 1-Percent of normal rainfall for the 2016 water year to the last full month prior to field investigation

Month	Actual (in)	Average (in)	Percent of Normal
October (2015)	4.31	3.48	124%
November	7.50	6.79	110%
December	14.15	7.23	196%
January (2016)	7.35	6.59	111%
February	3.43	5.51	62%
March	5.47	4.70	116%
TOTAL:	42.21	34.30	123%

Sources: *Actual Precipitation* (10/1/15 to 3/31/16): National Climate Data Center, NOAA, Oregon City, OR GHCND: USC00356334. *Average Precipitation*: WETS Station Oregon City, OR 6334

Table 2-Rainfall Assessment for the Preceding 3-Month Period

Rainfall Assessment for the Preceding 3-Month Period								
Prior Month		**WETS Rainfall Percentile (in)**		**Measured Rainfall (in)**	**Condition: (Dry, Wet, Normal)**	**Condition Value (1=dry, 2=normal, or 3=wet)**	**Month weight**	**Multiply (previous two columns)**
		30th	**70th**					
1st (most recent)	March	3.54	5.49	5.47	Normal	2	3	6
2nd	February	3.83	6.56	3.43	Dry	1	2	2
3rd	January	4.23	7.94	7.35	Normal	2	1	2
							Sum	**10**
Rainfall of prior period was: **drier** than normal (sum is 6-9), **normal** (sum is 10-14), **wetter** than normal (sum is 15-18)								***Normal***
WETS Station: Oregon City, OR 6334 (1971-2000)								
Measured Rainfall: Oregon City, OR US GHCND: USC00356334								

Source: National Climate Data Center, NOAA

D. METHODS

Preliminary Resource Review

Prior to the field investigation, reference materials were compiled and reviewed to aid in the detection of wetlands and non-wetland waters. The materials reviewed included:

- National Climate Data Center (NOAA 2016)
- NRCS WETS Tables 1971-2000 for Oregon City, OR (NRCS 2016)
- Custom Soil Resource Report for Study Srea (NRCS 2016)
- Custom Hydric Soils List: Study Area Shape file (NRCS 2016)
- National Wetland Inventory United States Fish and Wildlife Service (USFWS 2016)
- 7.5 Minute Quadrangles (USGS 2011)

Precipitation Analysis

In order to inform field wetland delineation methods and procedures, climate data were analyzed to determine whether recent rainfall was sufficient to expect normal hydrology indicators be present at wetland sampling locations. Precipitation was analyzed by comparing rainfall amounts to historical averages for the water year beginning October 1st, 2015 up to the last full month preceding field investigation. Recent precipitation was analyzed using a weighted scoring that compares historical averages to rainfall measured the three months prior to field investigation (Sumner et. al 2009). Precipitation for the water year was 123% of normal at the end of March 2016 (Table 1). Analysis of recent precipitation determined that conditions were "normal" (Table 2) and routine delineation methods were employed to capture wetland hydrology, if present.

National & Local Wetland Inventory (LWI & NWI)

NWI data was analyzed prior to field investigation (USFWS 2016). No NWI wetland, waterway or riparian features are depicted within the study area (*Appendix A-Figure 3*). The nearest NWI feature is the Willamette River, located roughly ¼ mile north of the study area. The Oregon City LWI does not include any wetland areas within the study area (Shapiro & Associates 1999). The nearest LWI features are several small wetland and riparian features to the east along Coffee Creek and to the west within the Canemah Natural Area.

Previous Wetland Delineations

It is unknown whether any previous wetland delineations have been conducted in the study area.

Soil Survey Analysis

Two soil map series are present in the study area: Saum and Xerochrepts (*Appendix A-Figure 4*) (NRCS 2016). The Saum series soils are mapped in a small portion of the southeast section of the study area, while the balance of the study area is mapped as Xerochrepts series. Both soil units are derived, at least in part, from colluvium of volcanic parent material (basal or andesite). Both soil units are described as quick-draining and neither soil map unit is classified as hydric. Soil conditions observed during field investigation correlate poorly with the descriptions provided in soil survey data. Soils observed were fairly uniform; soil matrix color was typically 10YR 3/1, with silt loam layers extending above silty clay loam texture soils. Where present, redoximorphic features in the form of oxidized rhizospheres and concentrations were of 10YR 4/4 and 10YR 4/6 colors. The interior of the wetland was not subject to exhaustive soil sampling, but a thin mucky-mineral layer was present on the surface and gleyed horizons were present in the lowest sampled layers. Soil colors were determined using *Munsell Soil Color Charts* (Gretag Macbeth 2000).

Table 3-Summary of Mapped Soil Units in Study Area

Soil Map Unit Name	Soil Map Unit Symbol	Percent of Study Area	Soil Classified as Hydric?
Saum silt loam 15-30% slopes	78D	~5%	No
Xerochrepts-Rock outcrop complex, moderately steep	98E	~95%	No

Site Specific Methods

The field investigation utilized the "Routine Onsite" method from the *Corps Wetland Delineation Manual* (USACE 1987) as guidance. The entire study area was traversed by foot and a visual assessment was conducted of hydrophytic vegetation, suspect topographical features and wetland hydrology indicators. 26 sample plots were used to delineate the extent of Wetland 1 (*Appendix A-Figure 6*). Paired sample plots were placed on opposite sides of the wetland boundary; odd-numbered plots placed in the upland and even-numbered plots placed in the wetland. Sample plot soil pits were dug to a depth of 20". Absolute aerial cover of plant species was reported for tree, shrub and herb layers, utilizing 5, 3, and 1 meter radius plots respectively. Wetland delineation data forms are included in *Appendix B*. Photo points were established near each sample point to document site conditions at the time of the field investigation. Ground-level photographs recorded during the field investigation are located in *Appendix C*.

E. DESCRIPTION OF WETLANDS AND NON-WETLAND WATERS

Wetland 1: 0.09 acres (4164.3 square feet)

Wetland 1 is an HGM –Slope Headwater (Adamus 2001), Cowardin-Palustrine Scrub-shrub (Cowardin et. al 1979) feature apparently fed by groundwater emergences on the north-facing slope immediately to the south of the study area. Groundwater emergences rise in coarse colluvium on the upper slope and in finer-textured substrates near the slope toe. The field investigator opted not to classify the feature as a waterway due to the following observations: sheeting, unidirectional flows were present, a lack of distinct beds and banks and a presumably ephemeral nature of flowing surface water. Surface water moves through the feature east to west, and was 2-3"deep at the lowest elevations of the wetland during site visits. Like much of the study area, wetland vegetation is dominated by Himalayan blackberry. Despite the high aerial cover of Himalayan blackberry, the species is poorly-rooted within the wetland. As such, vegetation was considered "problematic" within several wetland sampling locations and hydrophytic vegetation determinations were made accordingly. Native plant species present in the wetland included Pacific willow, tall mannagrass, giant horsetail, water parsley, Cooley's hedge-nettle (*Stachys cooleyae)* and American speedwell (*Veronica americana*).

F. DEVIATION FROM LWI OR NWI

The NWI does not map any wetlands within the study area. The Oregon City LWI does not map wetlands within the study area.

G. MAPPING METHOD

Sample Points and wetland boundaries were collected were collected using a Trimble R1 GNS Receiver paired with a Trimble Nomad 1050 mobile computer equipped with Trimble TerraSync software. GPS data was collected in a WGS84 geographic coordinate system and later transformed into a local coordinate system, NAD 1983 State Plane Oregon North FIPS3601 Feet, to calculate areas and create associated figures.

H. RESULTS AND CONCLUSIONS

One wetland area was identified within the study area during the field investigation. Wetland acreage totals 0.09 acres.

Wetland 1: 0.09 acres (4164.3 square feet)
Hydrogeomorphic Classification: Slope Headwater

Cowardin Classification: PSS

I. DISCLAIMER

This report documents the investigation, best professional judgment and conclusions of the investigator. It is correct and complete to the best of my knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing.

Appendix A

Figures

Figure 1:

Vicinity Map

Legend

Study Area (0.372 acres)

N
W E
S

1:24,000

4th and Miller Wetland Delineation

Clackamas County, Or. *5/23/2016*

NOTES:

1. *Topographic basemap provided by ESRI*

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Figure 2:

Tax Lot Map

Legend

- **Study Area (0.372 acres)**
- **Tax Lot (Clackamas Co.)**

N
W E
S

1:1,500

4th and Miller Wetland Delineation

Clackamas County, Or. *5/23/2016*

NOTES:

1. *Aerial photo provided by USDA, Photo date: 6-30-2014*
2. *Tax Lot data provided by Clackamas county. Data date: 1/2007*

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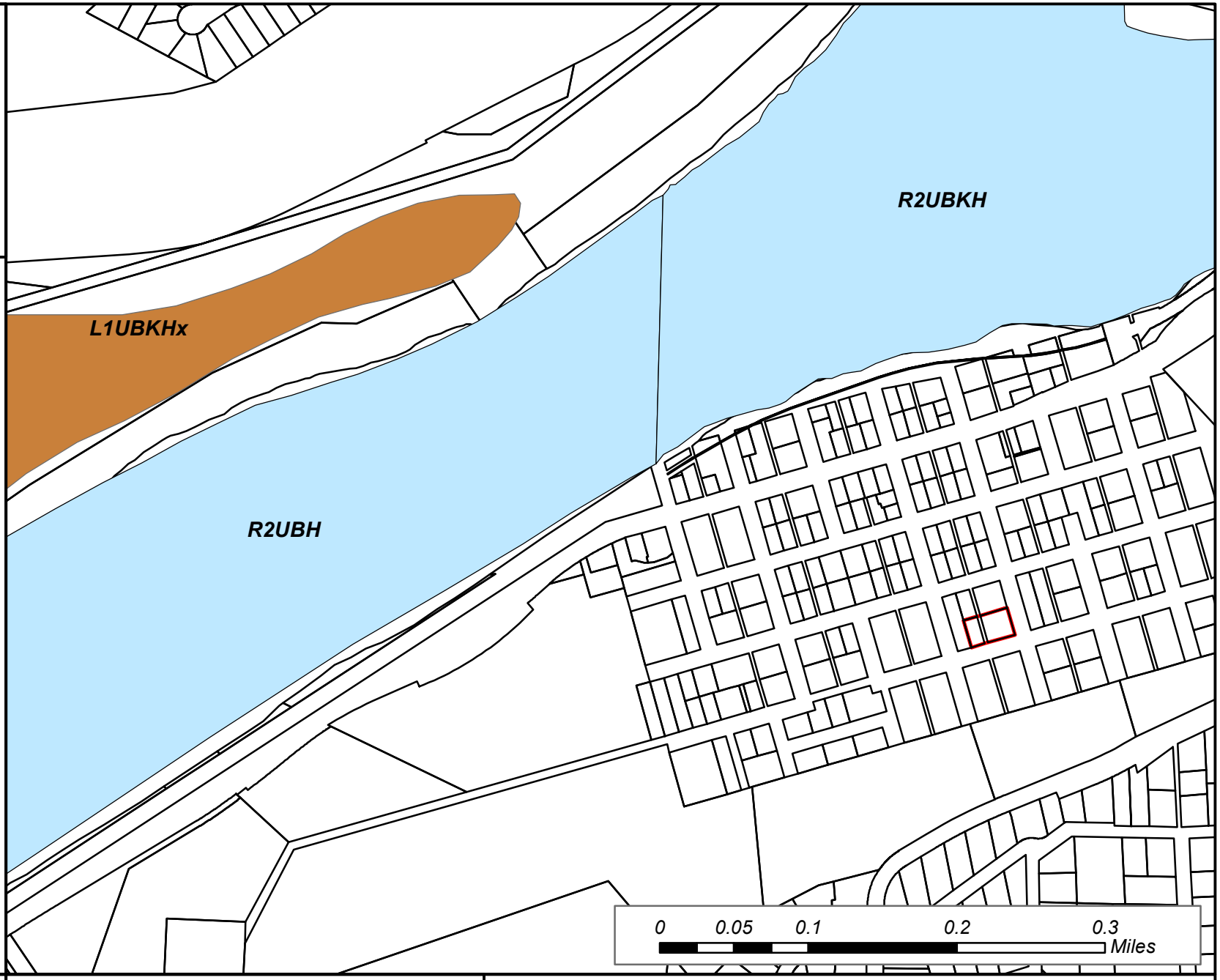
Figure 3:

NWI Map



Legend

- Study Area (0.372 acres)
- Tax Lot (Clackamas Co.)

NWI Wetland Type

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/ Shrub Wetland
- Freshwater Pond
- Riverine
- Lake
- Other

N
W E
S

1:6,000

4th and Miller Wetland Delineation

Clackamas County, Or. *5/23/2016*

NOTES:

1. *NWI data provided by USFWS.*
2. *Tax Lot data provided by Clackamas County.*

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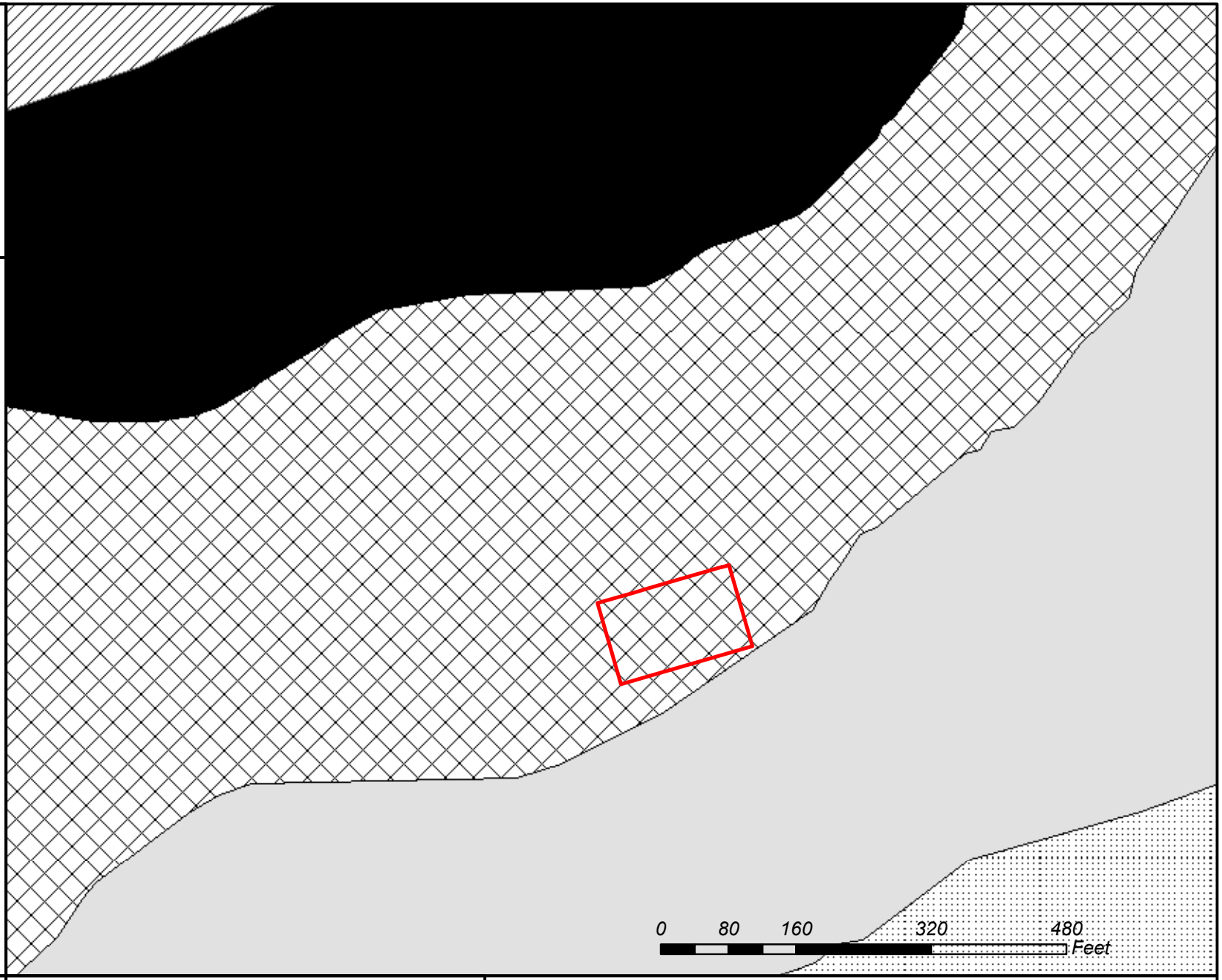
Figure 4:

Soils Map



Legend

- Study Area (0.372 acres)

Soil Type

- Newberg fine sandy loam
- Saum silt loam, 15 to 30 percent slopes
- Woodburn silt loam, 0 to 3 percent slopes
- Xerochrepts and Haploxerolls, very steep
- Xerochrepts-Rock outcrop complex, moderately steep

N
W E
S

1:2,000

4th and Miller Wetland Delineation

Clackamas County, Or. *5/23/2016*

NOTES:

1. Soil Data provided by NRCS.

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Figure 5:

Recent Aerial Photo

Legend

Study Area (0.372 acres)

N
W E
S

1:1,500

4th and Miller Wetland Delineation

Clackamas County, Or. *5/213/2016*

NOTES:

1. Aerial photo provided by USDA, Photo date: 6-30-2014

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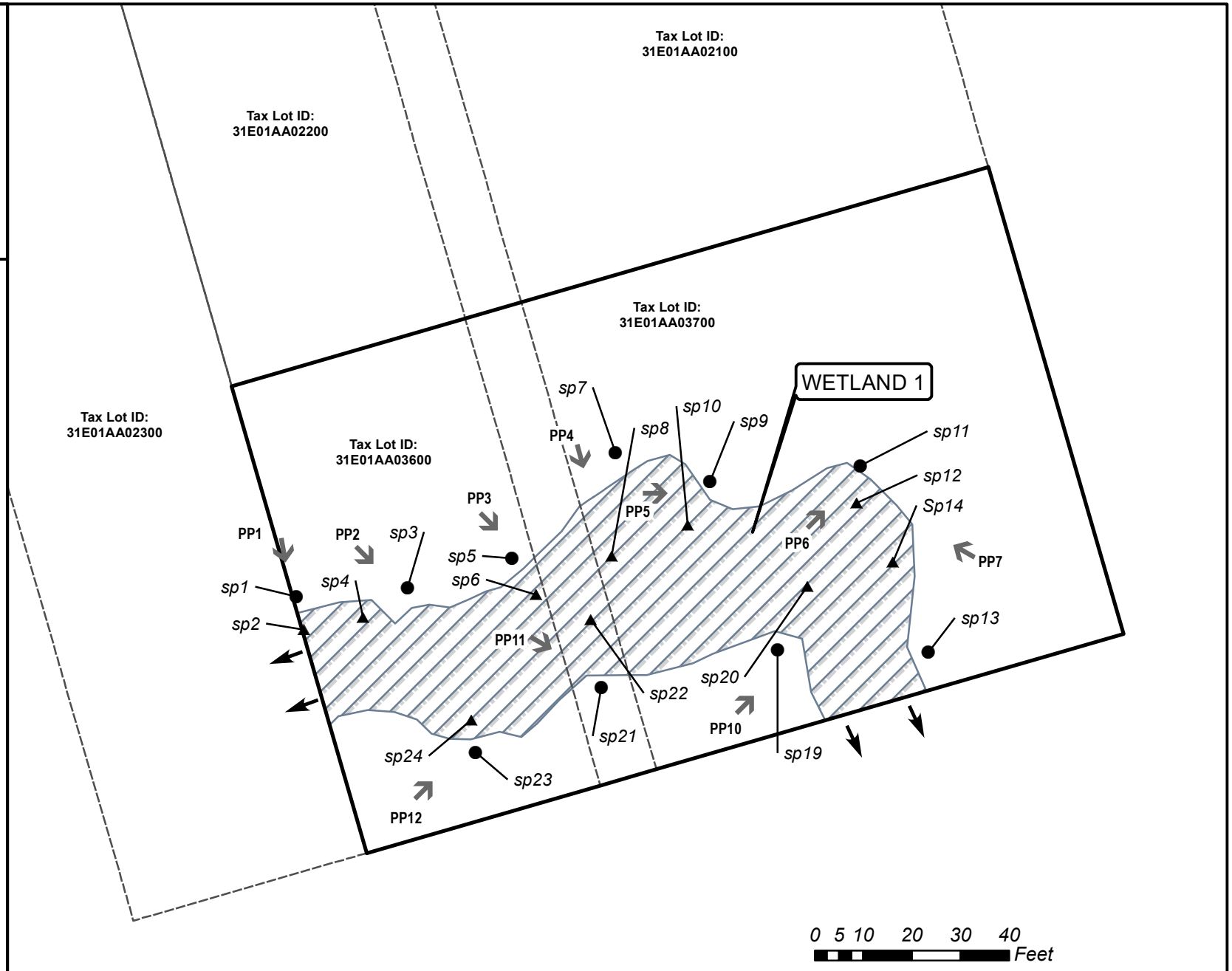
Figure 6:

Wetland Delineation Map



Legend

Sample Point

- ▲ Wetland
- ● Upland
- Photo Point
- Wetland Extends Outside Study Area
- Study Area (0.372 acres)
- Taxlots
- Wetland Area (0.096 acres)

N
W E
S

1:350

4th and Miller Wetland Delineation

Clackamas County, Or. *5/23/2016*

NOTES: *1. All wetland points and boundaries were collected with a resource grade GPS unit capable of sub-meter accuracy. All features collected have an accuracy of 1 meter or less.*

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Appendix B

Wetland Delineation Data Forms

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_01

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34516329 | Long.: -122.6218536 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (●)	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes ( ) No (●)	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	100	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	100	= Total Cover	
Herb Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 0

Dominance Test worksheet:

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: 0.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_01

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	3/1	100%						Silt Loam	
12-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_02

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34514487 | Long.: -122.621847 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (●) No ( )	Is the Sampled Area within a Wetland? Yes (●) No ( )
Hydric Soil Present? Yes (●) No ( )	
Wetland Hydrology Present? Yes (●) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	80	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	80	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	10	[x] 100.0%	FACW
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	10	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 90

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: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	90 (A)		340 (B)

Prevalence Index = B/A = 3.778

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [x] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

Rubus armeniacus weakly rooted in wetland; Problematic Hydrophytic Vegetation indicator used; hydrology and soil present.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_02

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR	3/1	100%						Silt Loam	
7-14	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	
14-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	16
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	12

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_03

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34516993 | Long.: -122.6217651 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes ( ) No (•)	
Wetland Hydrology Present? Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	100	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	100	= Total Cover	
Herb Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 100

Dominance Test worksheet:

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: 0.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_03

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR	2/2	100%					Silt Loam	
5-20	10YR	3/1	100%					Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_04

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34515266 | Long.: -122.6218001 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes (•) No ( )
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	75	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	75	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	25	[x] 100.0%	FACW
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	25	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 75

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: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A = 3.500

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [x] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

Rubus armeniacus weakly rooted in wetland; Problematic Hydrophytic Vegetation indicator used; hydrology and soil present.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 04

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR	3/1	100%						Silt Loam	
5-12	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	
12-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	16
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	12

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_05

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34518806 | Long.: -122.6216823 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes ( ) No (•)	
Wetland Hydrology Present? Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	0	[ ] 0.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 0

Dominance Test worksheet:

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: 0.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = 0.000

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_05

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	3/1	100%						Silt Loam	
12-15	10YR	3/1	99%	10YR	4/4	1%	C	M	Silty Clay Loam	
15-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_06

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34516811 | Long.: -122.621662 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes (•) No ( )
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	75	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	75	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	5	[x] 100.0%	FACW
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	5	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 95

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: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	80 (A)		310 (B)

Prevalence Index = B/A = 3.875

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [x] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

Rubus armeniacus weakly rooted in wetland; Problematic Hydrophytic Vegetation indicator used; hydrology and soil present.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 06

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/1	100%						Silt Loam	
6-16	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	
16-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	15
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	11

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_07

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): Concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34524952 | Long.: -122.6216016 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes ( ) No (•)	
Wetland Hydrology Present? Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	95	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	95	= Total Cover	
Herb Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 95

Dominance Test worksheet:

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: 0.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	95 (A)		380 (B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_07

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR	3/1	100%						Silt Loam	
10-15	10YR	3/1	99%	10YR	4/4	1%	C	M	Silty Clay Loam	
15-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_08

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34519106 | Long.: -122.6216026 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes ( ) No (•)	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	80	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	80	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	10	[x] 66.7%	FACW
2. Urtica dioica	5	[x] 33.3%	FAC
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	15	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 85

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: 66.7% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	5	x 3 =	15
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	95 (A)		355 (B)

Prevalence Index = B/A = 3.737

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [x] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_08

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100%						Silt Loam	
4-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	8
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	4

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_09

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34523439 | Long.: -122.6215253 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes ( ) No (•)	
Wetland Hydrology Present? Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	0	[ ] 0.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	5	[x] 50.0%	FACW
2. Convolvulus arvensis	5	[x] 50.0%	UPL
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	10	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 90

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: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	10 (A)		35 (B)

Prevalence Index = B/A = 3.500

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 09

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR	3/1	100%						Silt Loam	
9-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_10

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34520948 | Long.: -122.6215423 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes (•) No ( )
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	25	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	50	☑ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	50	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	15	☑ 34.1%	FACW
2. Oenanthe sarmentosa	7	☑ 15.9%	OBL
3. Epilobium ciliatum	7	☑ 15.9%	FACW
4. Rumex crispus	5	☐ 11.4%	FAC
5. Convolvulus arvensis	5	☐ 11.4%	UPL
6. Glyceria elata	5	☐ 11.4%	FACW
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	44	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 60

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	7	x 1 =	7
FACW species	52	x 2 =	104
FAC species	5	x 3 =	15
FACU species	50	x 4 =	200
UPL species	5	x 5 =	25
Column Totals:	119 (A)		351 (B)

Prevalence Index = B/A = 2.950

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrologic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤3.0 [1]
- ☐ 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants [1]
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 10

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR	3/1	100%						Silt Loam	
5-10	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	
10-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	17
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	12

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_11

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34524563 | Long.: -122.6214057 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (●)	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes ( ) No (●)	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	25	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	90	☑ 92.8%	FACU
2. Corylus cornuta	7	☐ 7.2%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	97	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Convolvulus arvensis	5	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	5	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 95

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: 33.3% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	0	x 3 =	0
FACU species	97	x 4 =	388
UPL species	5	x 5 =	25
Column Totals:	127 (A)		463 (B)

Prevalence Index = B/A = 3.646

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 11

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR	3/1	100%						Silt Loam	
10-17	10YR	3/1	99%	10YR	4/4	1%	C	M	Silty Clay Loam	
17-20	10YR	3/1	7%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_12

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34522442 | Long.: -122.6214076 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes (•) No ( )
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	25	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	70	☑ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	70	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	25	☑ 75.8%	FACW
2. Oenanthe sarmentosa	5	☐ 15.2%	OBL
3. Convolvulus arvensis	3	☐ 9.1%	UPL
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	33	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 70

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: 66.7% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5	
FACW species	50	x 2 =	100	
FAC species	0	x 3 =	0	
FACU species	70	x 4 =	280	
UPL species	3	x 5 =	15	
Column Totals:	128	(A)	400	(B)

Prevalence Index = B/A = 3.125

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrologic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤3.0 [1]
- ☐ 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants [1]
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 12

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR	3/1	100%						Silt Loam	
2-8	10YR	4/4	95%	10YR	4/4	3%	C	M	Silty Clay Loam	Additional redox feature in layer:10YR 4/6 2% c/pl
8-20	10YR	4/4	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	9
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	6

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_13

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34514128 | Long.: -122.6213471 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (●)	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes (●) No ( )	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	100	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	100	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	5	[x] 100.0%	FACW
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	5	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 95

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: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	105 (A)		410 (B)

Prevalence Index = B/A = 3.905

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 13

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100%						Silt Loam	
4-8	10YR	3/1	99%	10YR	4/4	1%	C	M	Silty Clay Loam	
8-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	20
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	16

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_14

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34519157 | Long.: -122.6213773 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes (•) No ( )
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	40	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	60	☑ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	60	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	25	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	25	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 75

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: 66.7% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	125 (A)		370 (B)

Prevalence Index = B/A = 2.960

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrologic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤3.0 [1]
- ☐ 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants [1]
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 14

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100%						Silt Loam	
4-7	10YR	3/1	99%	10YR	4/4	1%	C	M	Silty Clay Loam	
7-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	13
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	9

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_15

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34510107 | Long.: -122.6213179 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (●)	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes ( ) No (●)	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	90	[x] 90.0%	FACU
2. Acer macrophyllum	10	[ ] 10.0%	FACU
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	100	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Hedera helix	7	[x] 58.3%	FACU
2. Convolvulus arvensis	5	[x] 41.7%	UPL
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	12	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 90

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	107	x 4 =	428
UPL species	5	x 5 =	25
Column Totals:	112 (A)		453 (B)

Prevalence Index = B/A = 4.045

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 15

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	3/1	100%						Silt Loam	
12-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_16

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34509732 | Long.: -122.6212987 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (●) No ( )	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes (●) No ( )	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	20	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	80	☑ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	80	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	10	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	10	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 90

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: 66.7% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	30	x 2 =	60	
FAC species	0	x 3 =	0	
FACU species	80	x 4 =	320	
UPL species	0	x 5 =	0	
Column Totals:	110	(A)	380	(B)

Prevalence Index = B/A = 3.455

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrologic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤3.0 [1]
- ☐ 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants [1]
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 16

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100%						Silt Loam	
4-16	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	
16-20	10YR	2/1	95%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	10
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	7

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_17

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34509806 | Long.: -122.6214184 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	50	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	50	☑ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	50	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Hedera helix	10	☑ 66.7%	FACU
2. Polystichum munitum	5	☑ 33.3%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	15	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 85

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	50	x 2 =	100	
FAC species	0	x 3 =	0	
FACU species	65	x 4 =	260	
UPL species	0	x 5 =	0	
Column Totals:	115	(A)	360	(B)

Prevalence Index = B/A = 3.130

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 17

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR	3/1	100%						Silt Loam	
7-10	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	
10-20	10YR	3/1	90%	10YR	4/6	10%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_18

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.3450921 | Long.: -122.6214039 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (●) No ( )	Is the Sampled Area within a Wetland? Yes (●) No ( )
Hydric Soil Present? Yes (●) No ( )	
Wetland Hydrology Present? Yes (●) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	50	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	50	☑ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	50	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	15	☑ 36.6%	FACW
2. Epilobium ciliatum	15	☑ 36.6%	FACW
3. Oenanthe sarmentosa	5	☐ 12.2%	OBL
4. Athyrium filix-femina	3	☐ 7.3%	FAC
5. Hedera helix	3	☐ 7.3%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	41	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 60

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	5	x 1 =	5
FACW species	80	x 2 =	160
FAC species	3	x 3 =	9
FACU species	53	x 4 =	212
UPL species	0	x 5 =	0
Column Totals:	141 (A)		386 (B)

Prevalence Index = B/A = 2.738

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrologic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤3.0 [1]
- ☐ 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants [1]
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 18

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100%						Silt Loam	
4-9	10YR	3/1	95%	10YR	4/4	3%	C	M	Silty Clay Loam	Additional redox feature in layer:10YR 4/6 2% c/pl
9-20	10YR	3/1	95%	10YR	4/6	10%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	11
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	7

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_19

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34514042 | Long.: -122.6214676 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (●)	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes (●) No ( )	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	50	[x] 100.0%	FACW
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	20	[x] 80.0%	FACU
2. Rubus ursinus	5	[x] 20.0%	FACU
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	25	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Hedera helix	75	[x] 85.2%	FACU
2. Equisetum telmateia	10	[ ] 11.4%	FACW
3. Polystichum munitum	3	[ ] 3.4%	FACU
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	88	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 0

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	103	x 4 =	412
UPL species	0	x 5 =	0
Column Totals:	163 (A)		532 (B)

Prevalence Index = B/A = 3.264

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 19

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/1	100%						Silt Loam	
6-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_20

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34517672 | Long.: -122.6214453 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes (•) No ( )
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Salix lucida	50	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	20	☑ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	25	☑ 52.1%	FACW
2. Glyceria elata	5	☐ 10.4%	FACW
3. Oenanthe sarmentosa	5	☐ 10.4%	OBL
4. Hedera helix	5	☐ 10.4%	FACU
5. Rumex crispus	5	☐ 10.4%	FAC
6. Geranium robertianum	3	☐ 6.3%	FACU
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
	48	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 0

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: 66.7% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5	
FACW species	80	x 2 =	160	
FAC species	5	x 3 =	15	
FACU species	28	x 4 =	112	
UPL species	0	x 5 =	0	
Column Totals:	118	(A)	292	(B)

Prevalence Index = B/A = 2.475

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrologic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤3.0 [1]
- ☐ 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants [1]
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 20

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	3/1	100%						Silt Loam	
3-8	10YR	3/1	93%	10YR	4/4	5%	C	M	Silty Clay Loam	Additional redox feature in layer:10YR 4/6 2% c/pl
8-13	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	
13-20	10YR	2/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	15
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	11

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_21

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34511637 | Long.: -122.6216079 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (●) No ( )	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes (●) No ( )	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	90	[✓] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	90	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	5	[✓] 62.5%	FACW
2. Athyrium filix-femina	3	[✓] 37.5%	FAC
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	8	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 95

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: 66.7% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	3	x 3 =	9
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	98 (A)		379 (B)

Prevalence Index = B/A = 3.867

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [✓] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_21

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/1	100%						Silt Loam	
6-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_22

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34515474 | Long.: -122.6216179 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (●) No ( )	Is the Sampled Area within a Wetland? Yes (●) No ( )
Hydric Soil Present? Yes (●) No ( )	
Wetland Hydrology Present? Yes (●) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	[ ]	0.0%	
2.	0	[ ]	0.0%	
3.	0	[ ]	0.0%	
4.	0	[ ]	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 3 m)				
1. Rubus armeniacus	60	[✓]	92.3%	FACU
2. Salix lucida	5	[ ]	7.7%	FACW
3.	0	[ ]	0.0%	
4.	0	[ ]	0.0%	
5.	0	[ ]	0.0%	
	65	= Total Cover		
Herb Stratum (Plot size: 1 m)				
1. Equisetum telmateia	75	[✓]	100.0%	FACW
2.	0	[ ]	0.0%	
3.	0	[ ]	0.0%	
4.	0	[ ]	0.0%	
5.	0	[ ]	0.0%	
6.	0	[ ]	0.0%	
7.	0	[ ]	0.0%	
8.	0	[ ]	0.0%	
9.	0	[ ]	0.0%	
10.	0	[ ]	0.0%	
11.	0	[ ]	0.0%	
	75	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	[ ]	0.0%	
2.	0	[ ]	0.0%	
	0	= Total Cover		

% Bare Ground in Herb Stratum: 25

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: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	80	x 2 =	160	
FAC species	0	x 3 =	0	
FACU species	60	x 4 =	240	
UPL species	0	x 5 =	0	
Column Totals:	140	(A)	400	(B)

Prevalence Index = B/A = 2.857

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [✓] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 22

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100%						Silt Loam	
4-8	10YR	3/1	95%	10YR	4/6	3%	C	PL	Silty Clay Loam	Additional redox feature in layer:10YR 4/4 2% c/m
8-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	14
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	10

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_23

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34507821 | Long.: -122.6217073 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (●)	Is the Sampled Area within a Wetland? Yes ( ) No (●)
Hydric Soil Present? Yes ( ) No (●)	
Wetland Hydrology Present? Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Acer macrophyllum	25	☑	50.0%	FACU
2. Prunus emarginata	25	☑	50.0%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
	50	= Total Cover		
Sapling/Shrub Stratum (Plot size: 3 m)				
1. Rubus armeniacus	15	☑	55.6%	FACU
2. Frangula purshiana	7	☑	25.9%	FAC
3. Rubus ursinus	5	☐	18.5%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	27	= Total Cover		
Herb Stratum (Plot size: 1 m)				
1. Hedera helix	75	☑	93.8%	FACU
2. Equisetum telmateia	5	☐	6.3%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
	80	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

% Bare Ground in Herb Stratum: 20

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	7	x 3 =	21
FACU species	145	x 4 =	580
UPL species	0	x 5 =	0
Column Totals:	157 (A)		611 (B)

Prevalence Index = B/A = 3.892

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_23

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR	3/2	100%					Silt Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_24

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34509632 | Long.: -122.6217114 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 (•) No ( )	Is the Sampled Area within a Wetland? Yes (•) No ( )
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	[ ]	0.0%	
2.	0	[ ]	0.0%	
3.	0	[ ]	0.0%	
4.	0	[ ]	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 3 m)				
1. Rubus armeniacus	25	[x]	83.3%	FACU
2. Rubus ursinus	5	[ ]	16.7%	FACU
3.	0	[ ]	0.0%	
4.	0	[ ]	0.0%	
5.	0	[ ]	0.0%	
	30	= Total Cover		
Herb Stratum (Plot size: 1 m)				
1. Equisetum telmateia	60	[x]	85.7%	FACW
2. Athyrium filix-femina	5	[ ]	7.1%	FAC
3. Epilobium ciliatum	5	[ ]	7.1%	FACW
4.	0	[ ]	0.0%	
5.	0	[ ]	0.0%	
6.	0	[ ]	0.0%	
7.	0	[ ]	0.0%	
8.	0	[ ]	0.0%	
9.	0	[ ]	0.0%	
10.	0	[ ]	0.0%	
11.	0	[ ]	0.0%	
	70	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	[ ]	0.0%	
2.	0	[ ]	0.0%	
	0	= Total Cover		

% Bare Ground in Herb Stratum: 0

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: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	5	x 3 =	15
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	100 (A)		265 (B)

Prevalence Index = B/A = 2.650

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [x] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (•) No ( )

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 24

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/2	100%						Silt Loam	
4-12	10YR	3/2	95%	10YR	4/4	5%	C	M	Silty Clay Loam	
12-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	16
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	12

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_25

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34507218 | Long.: -122.6218822 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes ( ) No (•)	
Wetland Hydrology Present? Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 5 m)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Acer macrophyllum	15	☑	50.0%	FACU
2. Prunus emarginata	15	☑	50.0%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
	30	= Total Cover		
Sapling/Shrub Stratum (Plot size: 3 m)				
1. Corylus cornuta	30	☑	75.0%	FACU
2. Rubus armeniacus	10	☑	25.0%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	40	= Total Cover		
Herb Stratum (Plot size: 1 m)				
1. Hedera helix	75	☑	97.4%	FACU
2. Lapsana communis	2	☐	2.6%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
	77	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

% Bare Ground in Herb Stratum: 25

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	147	x 4 =	588
UPL species	0	x 5 =	0
Column Totals:	147 (A)		588 (B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP_25

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR	3/2	100%					Silt Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

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

Project/Site: 4th & Miller | City/County: Oregon City | Sampling Date: 11-Apr-16

Applicant/Owner: Aria Touch LLC | State: OR | Sampling Point: SP_26

Investigator(s): Joe Bettis | Section, Township, Range: S 01 T 3S R 1E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave | Slope: 0.0 % / 0.0 °

Subregion (LRR): MLRA 2 | Lat.: 45.34508246 | Long.: -122.6218553 | Datum: WGS 84

Soil Map Unit Name: Xerochrepts-Rock outcrop complex, moderately steep | 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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present? Yes (•) No ( )	
Wetland Hydrology Present? Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 m)			
1. Rubus armeniacus	30	[x] 100.0%	FACU
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	30	= Total Cover	
Herb Stratum (Plot size: 1 m)			
1. Equisetum telmateia	0	[ ] 0.0%	FACW
2. Athyrium filix-femina	10	[x] 66.7%	FAC
3. Hedera helix	5	[x] 33.3%	FACU
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
11.	0	[ ] 0.0%	
	15	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

% Bare Ground in Herb Stratum: 0

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: 33.3% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	45 (A)		170 (B)

Prevalence Index = B/A = 3.778

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrologic Vegetation
- [ ] 2 - Dominance Test is > 50%
- [ ] 3 - Prevalence Index is ≤3.0 [1]
- [ ] 4 - Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] 5 - Wetland Non-Vascular Plants [1]
- [ ] Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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Soil

Sampling Point: SP 26

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/2	100%						Silt Loam	
6-20	10YR	3/2	97%	10YR	4/6	3%	C	M	Silty Clay Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	17
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	12

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers

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Appendix C

Ground-Level Color Photographs

Photopoint 1: Sample Points 1 & 2 looking southwest

Photopoint 2: Sample Points 3 & 4 looking southeast

Photopoint 3: Sample Points 5 & 6 looking southeast

Photopoint 4: Sample Points 7 & 8 looking east

Photopoint 5: Sample Points 9 & 10 looking east

Photopoint 6: Sample Points 11 & 12 looking northeast

Photopoint 7: Sample Points 13 & 14 looking northwest

Photopoint 8: Sample Points 15 & 16 looking south

Photopoint 9: Sample Points 17 & 18 looking northwest

Photopoint 10: Sample Points 19 & 20 looking northwest

Photopoint 11: Sample Points 21 & 22 looking southeast

Photopoint 12: Sample Points 23 & 24 looking northeast

Photopoint 13: Sample Points 25 & 26 looking west

Photopoint 14: Seeps rising from slope to south of study area; looking north

Appendix D

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