



Prepared for: Aria Touch LLC 8903 SW Nordic Drive Portland, Oregon 97223

Prepared by:

Turnstone Environmental / EVREN Northwest, Inc. PO Box 83362 / PO Box 14488 Portland, OR 97283 / Portland, OR 97293







Wetland Delineation Report

for
4th & Miller
Oregon City
Clackamas County,
Oregon

EVREN Northwest Project # 1056-16001-01

May 24, 2016

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





TABLE OF CONTENTS

Preface	i
List of Tables	ii
List of Appendices	ii
A. Landscape Setting and Land use	1
B. Site Alterations	1
C. Precipitation Data	1
D. Methods	2
Preliminary Resource Review	2
Site Specific Methods	4
E Description of Wetlands and Non-Wetland Waters	4
F. Deviation from LWI or NWI	4
G. Mapping Method	4
H. Results and Conclusions	5
I. Disclaimer	5
LIST OF TABLES	
Table 1-Percent of normal rainfall for the 2016 water year to the last full month prior to field inve	
Table 2-Rainfall Assessment for the Preceding 3-Month Period	2
Table 3-Summary of Mapped Soil Units in Study Area	3

LIST OF APPENDICES

Appendix A: Figures

Appendix B: Wetland Delineation Data Forms Appendix C: Ground-Level Color Photographs Appendix D: Supplemental Precipitation Data

Appendix E: Literature Citations





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.), largeflowered 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

		Rainfa	II Assessi	ment for th	ne Preceding	g 3-Month Period		
Prior	Month	WETS Percent		Measured Rainfall	Condition: (Dry, Wet,	Condition Value (1=dry, 2=normal,	Month	Multiply (previous two
1 1101		30th	70th	(in)	Normal)	or 3=wet)	weight	columns)
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
	drier than no	rmal (sum is		l of prior perio		normal (sum is 15-18)		Normal
WETS Statio	on: Oregon Ci	ty, OR 6334	(1971-200	0)				1
Measured R	Rainfall: Orego	on City, OR I	JS GHCND	: USC0035633	34			

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.



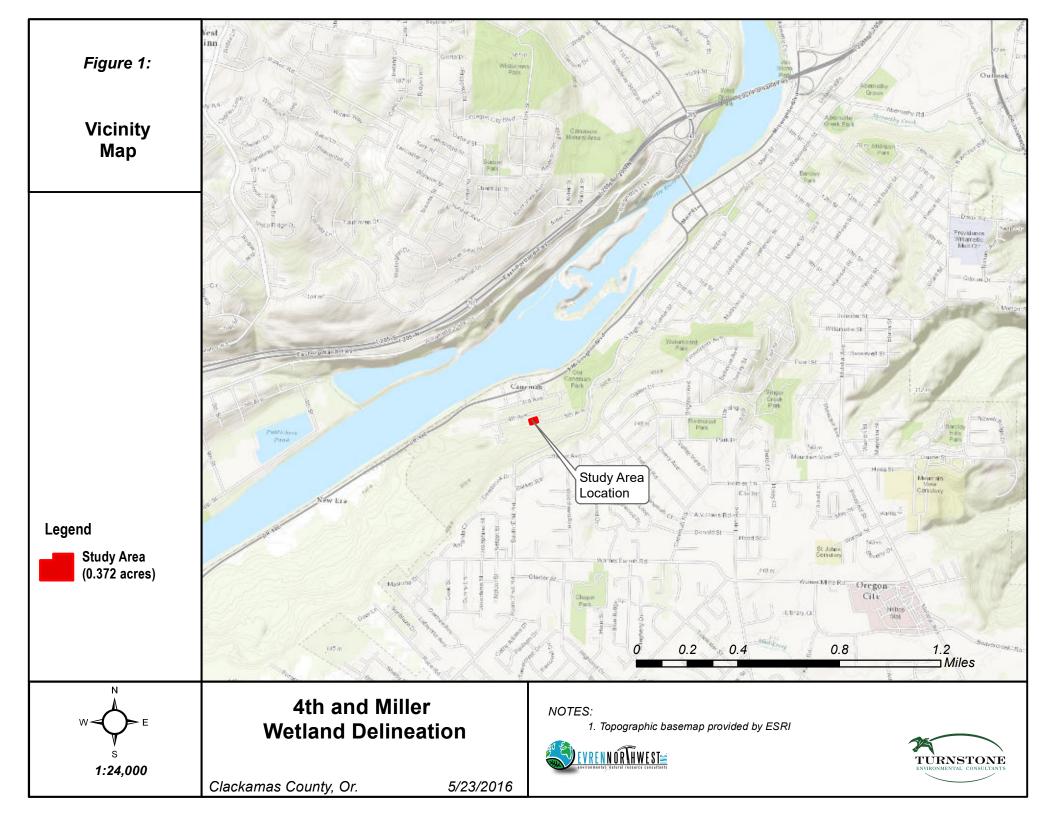


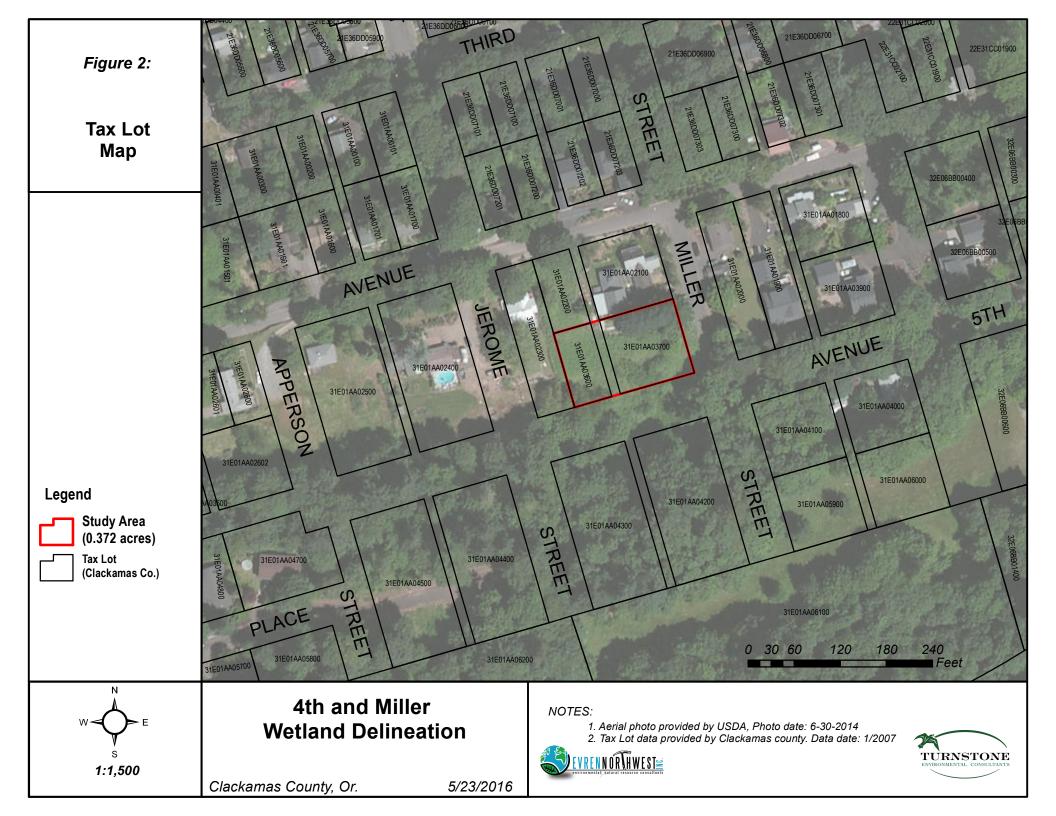
Appendix A

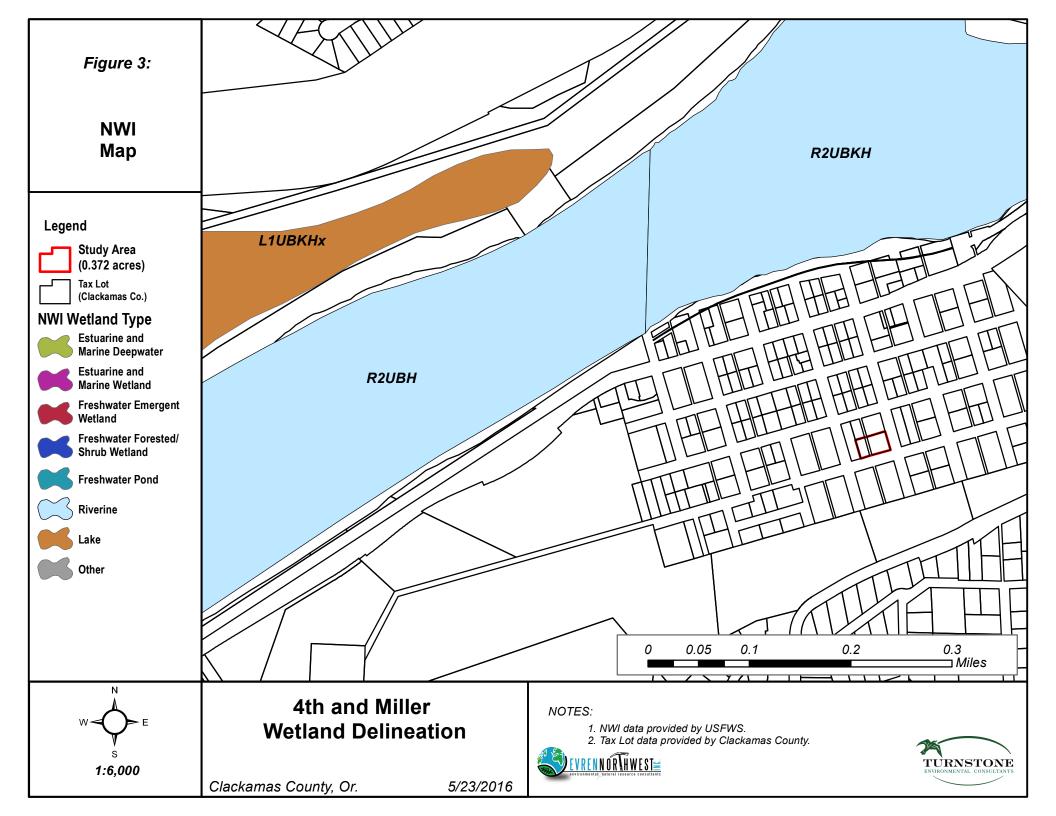
Figures

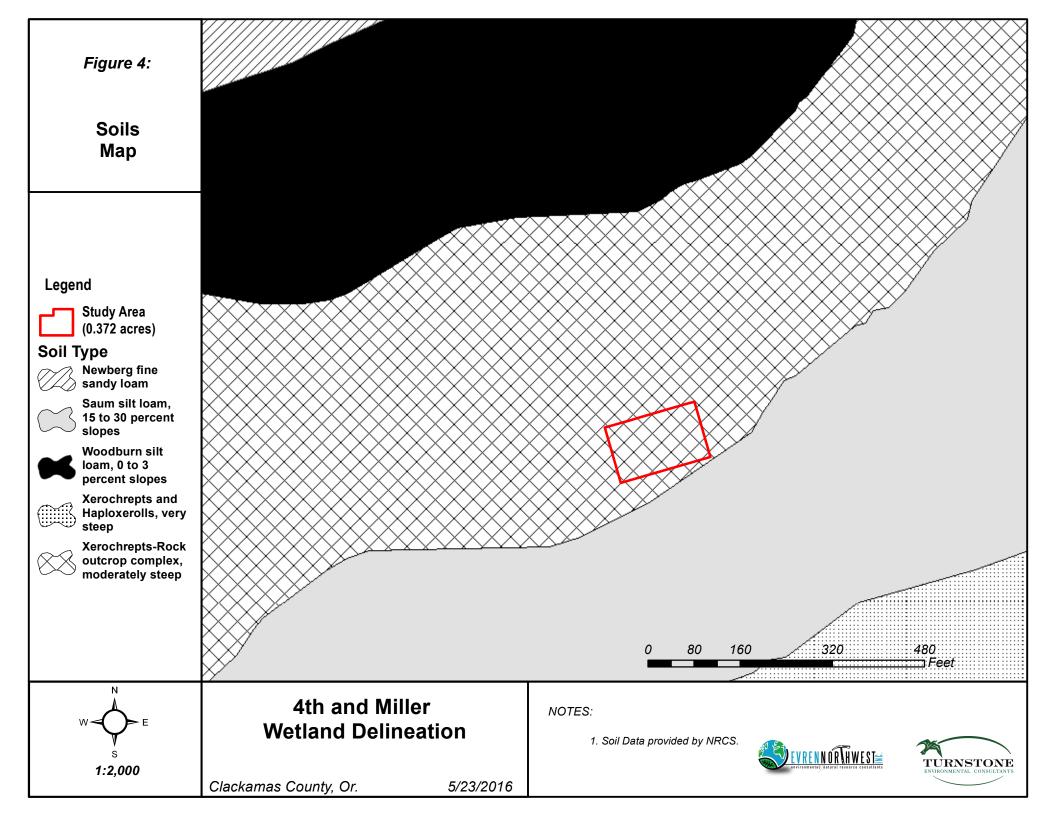














Recent **Aerial Photo**



Legend

Study Area (0.372 acres)



4th and Miller **Wetland Delineation**

Clackamas County, Or.

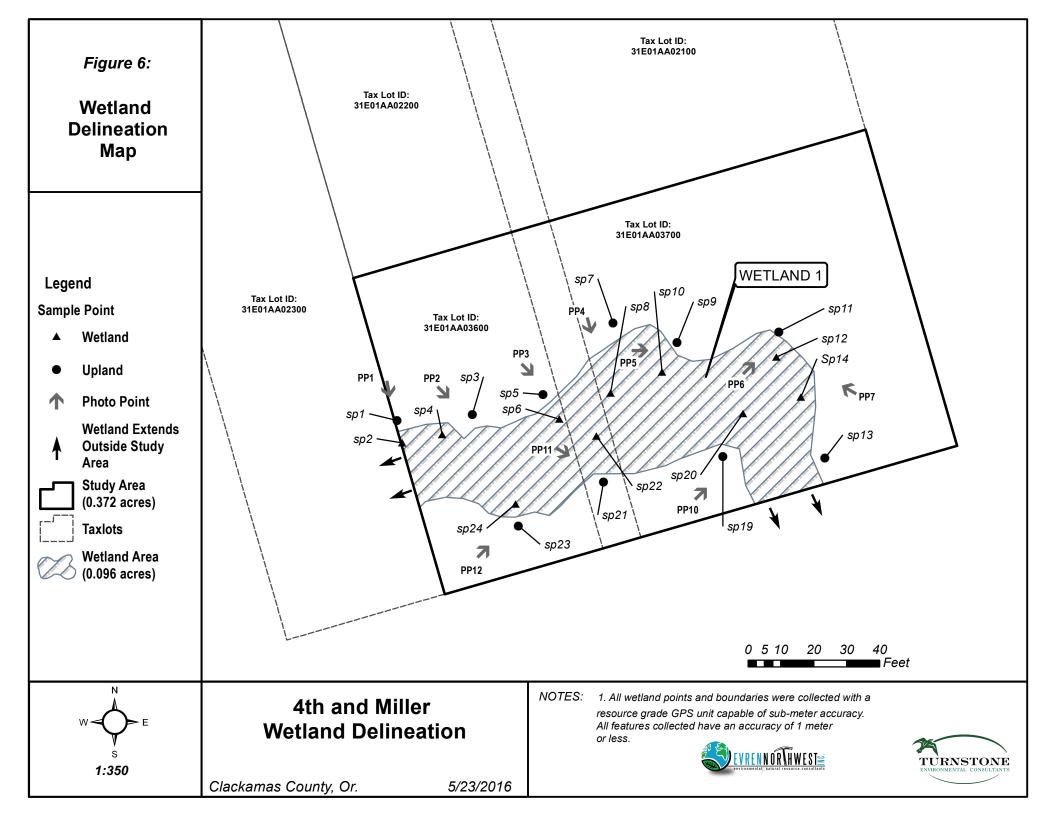
NOTES:

5/213/2016

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







Appendix B

Wetland Delineation Data Forms





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				Sec	ction, Te	ownship, Ra	ange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope			Loca	al relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
Subregion (LRR): MLRA 2			Lat.: 45	.345	16329		Long.: -122.6218536 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	rck outcron	complex m	noderately ster	en			NWI classification:
re climatic/hydrologic conditions on					Ye	s · No ·	
Are Vegetation, Soil	, or Hydro		significantly				Normal Circumstances" present? Yes No
Are Vegetation, Soil	, or Hydro		naturally pro				
							eded, explain any answers in Remarks.) ations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿					•
Hydric Soil Present?	Yes O	No 💿			3777 200000	Sampled A	V () N- (A)
Wetland Hydrology Present?	Yes O	No 💿			within	a Wetland	d? Fes O No O
Remarks:							
VEGETATION - Use scien	tific nam	es of plan	nts.	Dor	minant		
		•	Absolute		cles?	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		% Cover			Status	Number of Dominant Species
1,			0		0.0%		That are OBL, FACW, or FAC: (A)
2,					0.0%		Total Number of Dominant
3,				Η_	0.0%		Species Across All Strata:1(B)
4			0	Ц_	0.0%		Percent of dominant Species
Sapling/Shrub Stratum (Plot size	3 m)		= To	tal Cov	er	That Are OBL, FACW, or FAC: 0.0% (A/B)
1, Rubus armeniacus			100	✓	100.0%	FACU	Prevalence Index worksheet:
2,			0		0.0%		Total % Cover of: Multiply by:
3					0.0%		OBL species
4				H	0.0%		FACW species 0 x 2 = 0
5				Щ_	0.0%		FAC species x 3 =
Herb Stratum (Plot size:)		100	= To	tal Cov	er	FACU species x 4 =
1.			0		0.0%		UPL species x 5 =
2.			0		0.0%		Column Totals: 100 (A) 400 (B)
3			0		0.0%		Prevalence Index = B/A =
4.			0_		0.0%		Hydrophytic Vegetation Indicators:
5					0.0%		1 - Rapid Test for Hydrologic Vegetation
6,				H	0.0%		2 - Dominance Test is > 50%
8					0.0%		3 - Prevalence Index is ≤3.0 1
9,			0		0.0%		4 - Morphological Adaptations ¹ (Provide supporting
10			_ 0		0.0%		data in Remarks or on a separate sheet)
11.					0.0%		5 - Wetland Non-Vascular Plants 1
			0	= To	tal Cov	er	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:)					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,				H	0.0%		Hydrophytic
2					0.0% tal Cov		Vegetation Va- O Na O
% Bare Ground in Herb Stratum	1.0		0	- 10	cai Cov	er	Present? Tes O No O
Remarks:	0						l .
Remarks:							
*Indicator suffix = National sta							

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

US Army Corps of Engineers





Soil									Sampling Point:	SP 01
Profile Desc	ription: (Des	cribe to t	the depth n	eeded to docum	ent the ind	icator or co	onfirm the	absence of indicators.	,	
Depth		Matrix			Redox Feat	ures				
(inches)	Color (m	noist)	0/0	Color (moist)_%	Type 1	Loc2	Texture	Rema	arks
0-12	10YR	3/1	100%					Silt Loam		
12-20	10YR	3/1	97%	10YR 4/	4 3%	С	M	Silty Clay Loam		
¹Type: C=Con	centration. D=	=Depletion	n. RM=Reduc	ed Matrix, CS=Co	overed or Coa	ited Sand Gr	rains ² Loc	ation: PL=Pore Lining. M	=Matrix	
Hydric Soil	Indicators: ((Applicab	ole to all LRI	Rs, unless othe	rwise noted	l.)		Indicators for Prob	lematic Hydric So	ils³:
Histosol (Sandy Red				2 cm Muck (A10)	
	pedon (A2)				Matrix (S6)	(F4.) (- M DA 4)	Red Parent Mate		
Black His					icky Mineral (eyed Matrix (I		in MLKA 1)	Other (Explain in	Remarks)	
	n Sulfide (A4) Below Dark Si	urface (A1	11)		Matrix (F3)	-2)				
	rk Surface (A1		11)		rk Surface (F	6)		34-4:		
	uck Mineral (S:				Dark Surface			³ Indicators of hydroph wetland hydrology		
	eyed Matrix (S	,		Redox de	pressions (F8)		unless disturbed or		
	ayer (if pres									
Туре:										0
Depth (inc	:hes):							Hydric Soil Present?	Yes O No	•
Hydrolog	y drology Indic	atore								
			one require	d; check all tha	et apply)			Secondary Ind	icators (minimum	of two required)
_	Water (A1)	mam or	one require	_	tained Leave	s (B9) (exce	ot MLRA		ned Leaves (B9) (ML)	
	ter Table (A2)				, and 4B)	o (05) (0x00)	period	4A, and 4B		1, 2,
Saturation	10.00			Salt Cru	st (B11)			Drainage P	atterns (B10)	
	arks (B1)				Invertebrates	s (B13)		_	Water Table (C2)	
	t Deposits (B2)			en Sulfide Od				Visible on Aerial Ima	gery (C9)
	osits (B3)	,			Rhizosphere		Roots (C3)		c Position (D2)	90.7 (05)
Algal Ma	t or Crust (B4)				e of Reduced		, ,	☐ Shallow Aq		
☐ Iron Dep	osits (B5)			Recent	Iron Reductio	n in Tilled So	oils (C6)	FAC-neutra		
Surface 5	Soil Cracks (B6	5)			or Stressed I				Mounds (D6) (LRR A	4)
Inundation	on Visible on A	erial Ima	gery (B7)		xplain in Ren				Hummocks (D7)	•
Sparsely	Vegetated Co	ncave Sur	face (B8)			,			7	
Field Observ	ations:									
Surface Water	r Present?	Yes	O No 🖲	Depth	(inches):					
Water Table F	Present?	Yes	O No @	Depth	(inches):					_
Saturation Pre		Yes	O No €		(inches):		Wetla	and Hydrology Present	? Yes ○ N	0 💿
(includes capi				i instru						
Describe Rec	corded Data	(stream	gauge, mon	itor well, aeria	photos, pre	evious insp	ections), i	r available:		
Remarks:										





Project/Site: 4th & Miller			ity/County:	Oregon Cit	ty Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_02
nvestigator(s): Joe Bettis			Section, T	ownship, F	Range: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.)	: Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 49	5.34514487		Long.: -122.621847 Datum: WGS 84
					NWI classification:
oil Map Unit Name: Xerochrepts-R				s • No	
e climatic/hydrologic conditions or		150			
re Vegetation, Soil		significantly		Are "	Normal Circumstances" present? Yes No
Are Vegetation , Soil	, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)
Summary of Findings - A	ttach site map sh	owing sa	mpling p	oint lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ⊙ No ○				
Hydric Soil Present?	Yes No		Is the	Sampled	
Wetland Hydrology Present?	Yes No		withi	n a Wetlan	nd? Yes ◉ No ○
Remarks:	10 0 10 0				
Remarks:					
VEGETATION - Use scien	ntific names of plan	te	Dominant		
VEGETATION - Ose scien	ittilic flatfles of platf		Species?		
Tree Stratum (Plot size:	ĵ	Absolute % Cover	Rel.Strat. Cover	Indicator Status	
1,			0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2,			0.0%		
3.			0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.		0	0.0%		(a)
		0	= Total Cov	er	Percent of dominant Species That Are OBL FACW or FAC: 50.0% (A/B)
Sapling/Shrub Stratum (Plot size	2: 3 m)	-			That Are OBL, FACW, or FAC: 50.0% (A/B)
1 Rubus armeniacus		80	✓ 100.0%	FACU	Prevalence Index worksheet:
2,			0.0%		Total % Cover of: Multiply by:
3			0.0%		OBL species 0 x 1 = 0
4 5.			0.0%	-	FACW species 10 x 2 = 20
J			0.0%		FAC species x 3 =
Herb Stratum (Plot size: 1 m	.)	80	= Total Cov	er	FACU species x 4 =
1 Equisetum telmateia		10	1 00.0%	FACW	UPL species x 5 =
2.		0	0.0%		column Totals:90 (A)340 (B)
3		0	0.0%		Prevalence Index = B/A = 3.778
4		0	0.0%		Hydrophytic Vegetation Indicators:
5		0	0.0%		1 - Rapid Test for Hydrologic Vegetation
6			0.0%		2 - Dominance Test is > 50%
7			0.0%		3 - Prevalence Index is ≤3.0 1
8.———			0.0%		4 - Morphological Adaptations 1(Provide supporting
10.		0	0.0%		data in Remarks or on a separate sheet)
11.		0	0.0%		5 - Wetland Non-Vascular Plants 1
		10	= Total Cov	er	▼ Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		_		¹ Indicators of hydric soil and wetland hydrology must
1,		0	0.0%		be present, unless disturbed or problematic.
2		0	0.0%		Hydrophytic Vegetation
		0	= Total Cov	er	Present? Yes No
% Bare Ground in Herb Stratum	m:_90				
Remarks:					
Rubus armeniacus weakly rooted	in wetland; Problematic	Hydrophytic	Vegetation i	ndicator u	ised; hydrology and soil present.
*Indicator suffix = National sta	atur or professional desiste	accioned been	ura PagiaI	ctatue not	defined by BWS

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

US Army Corps of Engineers





rofile Descr	iption: (Des	scribe to	the depth i	needed to d	locument	the indi	cator or co	onfirm the	absence of indicators.)
Depth	,	Matrix				ox Featu			,
(inches)	Color (%	Color (r		9/0	Tvpe 1	Loc2	Texture Remarks
0-7	10YR	3/1	100%						Silt Loam
7-14	10YR	3/1	97%	10YR	4/4	3%	С	М	Silty Clay Loam
14-20	10YR	3/1	95%	10YR	4/4	5%	С	м	Silty Clay Loam
			_		_			_	
dric Soil I Histosol (Histic Epi	pedon (A2)			RRs, unless	otherwise dy Redox (oped Matrix	e noted. (55) (56)	.)		Lation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2)
Depleted Thick Dan Sandy Mu	ic (A3) Sulfide (A4) Below Dark S k Surface (A: ick Mineral (S eyed Matrix (S	Surface (A 12) 51)	11)	Loar Dep Red	my Mucky I my Gleyed eleted Matri ox Dark Su eleted Dark ox depress	Matrix (F x (F3) rface (F6 Surface (5) (F7)	in MLRA 1)	3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
	ayer (if pre	sent):							
Type: Depth (inc	h N -								Hydric Soil Present? Yes No
									797 the year and a read to 10 10 10 10 10 10 10 10 10 10 10 10 10
emarks:									
	у								
drolog	y Irology Indi	cators:							
drology etland Hyd imary Indi	Irology Indi		one requir						Secondary Indicators (minimum of two requ
drology stland Hyd mary Indi	Irology Indi cators (mir Vater (A1)	nimum of	one requir	□ w	ater-Staine	d Leaves	: (B9) (exœ _l	pt MLRA	_Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2,
drology tland Hyd mary Indi Surface V High Wat	Irology Indi icators (mir Vater (A1) per Table (A2	nimum of	one requir	□ w.	ater-Staine 2, 4A, and	d Leaves 4B)	s (B9) (exœ _l	pt MLRA	Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
drology stland Hyd mary Indi Surface V High Wat Saturatio	Irology Indi icators (mir Vater (A1) er Table (A2 n (A3)	nimum of	one requir	☐ W. 1,	ater-Staine 2, 4A, and alt Crust (B	d Leaves (4B) (11)		pt MLRA	Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
etland Hyd etland Hyd imary Indi Surface V High Wate Saturatio	Irology Indi cators (min Nater (A1) cer Table (A2 n (A3) arks (B1)	nimum of	one requir	□ W. 1, □ Sa □ Ac	ater-Staine 2, 4A, and alt Crust (B quatic Inve	ed Leaves (4B) (11) (tebrates	(B13)	pt MLRA	Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)
etland Hyd imary Indi Surface V High Wat Saturatio Water Ma Sediment	Irology Indi icators (mir Nater (A1) per Table (A2 n (A3) arks (B1) t Deposits (B	nimum of	one requir	☐ W. 1, ☐ Sa ☐ Ac	ater-Staine 2, 4A, and alt Crust (B quatic Invel ydrogen Su	d Leaves 4B) 11) rtebrates Ifide Odo	(B13) or (C1)		Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
etland Hyd imary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo	Irology Indi icators (min Nater (A1) per Table (A2 n (A3) arks (B1) t Deposits (B osits (B3)	<u>nimum of</u>) 2)	one requir	W. 1,	ater-Staine 2, 4A, and alt Crust (B quatic Invel ydrogen Su xidized Rhiz	ed Leaves (4B) (11) rtebrates (lfide Odo (cospheres	(B13) or (C1) s on Living F		Secondary Indicators (minimum of two requirements) 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)
drology etland Hyd imary Indee V Surface V High Wat Saturatio Water Ma Sediment Drift depo	Irology Indi icators (min Water (A1) ter Table (A2 in (A3) arks (B1) t Deposits (B cosits (B3)	<u>nimum of</u>) 2)	one requir	W. 1, Sa Ac Hy Oc Pr	ater-Staine 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhiz resence of f	d Leaves (4B) (11) (11) (11) (11) (12) (13) (14) (14) (14) (14) (15) (16) (16) (16) (16) (16) (16) (16) (16	(B13) or (C1) s on Living F Iron (C4)	Roots (C3)	Secondary Indicators (minimum of two requ 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)
drology tland Hyd mary Indi Surface V High Wat Saturatio Water Me Sediment Drift depo	Irology Indi icators (min Water (A1) ter Table (A2 in (A3) arks (B1) t Deposits (B cosits (B3)	i <u>imum of</u>) 2) i)	one requir	☐ W 1, ☐ Sa ☐ Ac ☐ Hy ☐ O2 ☐ Pr ☐ Re	ater-Staine 2, 4A, and alt Crust (B: quatic Invel ydrogen Su xidized Rhiz resence of B ecent Iron	d Leaves (4B) (11) (rtebrates (lfide Odo (cospheres (Reduced)	(B13) or (C1) s on Living F Iron (C4) n in Tilled Sc	Roots (C3)	Secondary Indicators (minimum of two requestions) 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)
drology tland Hyd mary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depp Algal Mat Iron Dep Surface S	irology Indi icators (mir Nater (A1) per Table (A2 n (A3) arks (B1) t Deposits (B oosits (B3) or Crust (B4 oosits (B5)	2) 1) 2) 4)		W 1, Sa Ac Hy Or Re	ater-Staine 2, 4A, and alt Crust (B. quatic Inver ydrogen Su xidized Rhiz resence of f ecent Iron I unted or Si	d Leaves 4B) 11) rtebrates lifide Odo cospheres Reduced i Reduction tressed P	(B13) or (C1) s on Living F Iron (C4) n in Tilled So Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two requested) 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)
drology tland Hyd mary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo Algal Mat Iron Dep Surface S Inundatio	irology Indi icators (mir Nater (A1) ver Table (A2 n (A3) arks (B1) t Deposits (B osits (B3) c or Crust (B4 osits (B5) soil Cracks (B	nimum of) 2) 6) Aerial Ima	gery (B7)	W 1, Sa Ac Hy Or Re	ater-Staine 2, 4A, and alt Crust (B: quatic Invel ydrogen Su xidized Rhiz resence of B ecent Iron	d Leaves 4B) 11) rtebrates lifide Odo cospheres Reduced i Reduction tressed P	(B13) or (C1) s on Living F Iron (C4) n in Tilled So Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two required by Mater-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)
drology tland Hyd mary Indi Surface V High Wat Saturatio Water Ma Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely	Irology Indicators (min Water (A1) Water (A2) or Table (A2 or (A3) arks (B1) Deposits (B osits (B3) or Crust (B4 osits (B5) Soil Cracks (B on Visible on Vegetated Co	nimum of) 2) 6) Aerial Ima	gery (B7)	W 1, Sa Ac Hy Or Re	ater-Staine 2, 4A, and alt Crust (B. quatic Inver ydrogen Su xidized Rhiz resence of f ecent Iron I unted or Si	d Leaves 4B) 11) rtebrates lifide Odo cospheres Reduced i Reduction tressed P	(B13) or (C1) s on Living F Iron (C4) n in Tilled So Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two requirements) 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)
drology tland Hyd mary Indi Surface V High Wat Saturatio Water Ma Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely	Irology Indi icators (mir Water (A1) wer Table (A2 n (A3) er Table (A2 n (A3) t Deposits (B cosits (B3) or Crust (B4 osits (B5) soil Cracks (B on Visible on Vegetated Cc ations:	nimum of) 2) 4) 6) Aerial Ima	gery (B7)	W 1, Sa Ac Hy Or Pr St	ater-Staine 2, 4A, and alt Crust (B quatic Inver ydrogen Su xidized Rhiz resence of i ecent Iron i united or Si ther (Explai	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduced Reduction tressed P in in Rem	(B13) or (C1) s on Living F Iron (C4) n in Tilled So Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two requirements) 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)
rdrology etland Hyd imary Indi Surface V High Wat Sediment Drift dep Algal Mat I ron Dep Surface S Inundatic Sparsely eld Observ rface Water	Irology Indi icators (mir Water (A1) mer Table (A2 n (A3) et al. (A3) to Deposits (B osits (B3) or Crust (B4 osits (B5) soil Cracks (B on Visible on Yegetated Ca ations:	inimum of) 2) 6) Aerial Ima	igery (B7) rface (B8)	W 1,	ater-Staine 2, 4A, and alt Crust (Bi- quatic Inver- ydrogen Su xidized Rhiz resence of I ecent Iron I cunted or Si ther (Explai	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced Reductior tressed P in in Rem	(B13) or (C1) s on Living f Iron (C4) n in Tilled Sc Mants (D1) (narks)	Roots (C3)	Secondary Indicators (minimum of two requested) 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)
ydrology etland Hyd rimary Indi Surface V High Wat Saturatio Sadiment Drift dep Algal Mat I ron Dep Surface S I nundatic Sparsely eld Observ urface Water	Irology Indi cators (mir Water (A1) Er Table (A2 Er (A3) E Deposits (B Cosits (B3) F Or Crust (B4 Cosits (B5) F Or Crust (B4 Cosi	2) 2) 4) Aerial Imanoncave Sur	igery (B7) rface (B8) No (W 1,	ater-Staine 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhizi resence of I ecent Iron I united or Si ther (Explai	d Leaves 4B) 11) rtebrates Iffide Odo cospheres Reduced Reductor tressed P in in Rem nes):	(B13) or (C1) s on Living F Iron (C4) Iron (C4) Rents (D1) (marks)	Roots (C3) pils (C6) LRR A)	Secondary Indicators (minimum of two requested) 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)
ydrolog: etland Hyd imary Indi Surface V High Wat Sadiment Drift depi Algal Mat I ron Dep Surface S I nundatic Sparsely eld Observ rface Water atter Table P turation Pre	Irology Indi cators (min Water (A1) Water (A3) Arks (B1) Ar Deposits (B Ar Deposi	2) 2) 4) Aerial Imanoncave Sur	ogery (B7) rface (B8) No No No	W 1,	ater-Staine 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhiz resence of I escent Iron I united or Si ther (Explai	d Leaves (4B) (11) (11) (12) (13) (14) (15) (15) (16) (16) (16) (16) (16) (16) (16) (16	(B13) or (C1) s on Living F Iron (C4) in in Tilled So Plants (D1) (aarks)	Roots (C3) pils (C6) LRR A)	Secondary Indicators (minimum of two requivators (minimum of two requivators) 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)
ydrolog: etland Hyd imary Indi Surface V High Wate Sediment Drift depi Algal Mat Iron Dep Surface S Inundatic Sparsely eld Observ urface Water atter Table P	Irology Indi cators (min Water (A1) Water (A3) Arks (B1) Ar Deposits (B Ar Deposi	2) 2) 4) Aerial Imanoncave Sur	ogery (B7) rface (B8) No No No	W 1,	ater-Staine 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhiz resence of I escent Iron I united or Si ther (Explai	d Leaves (4B) (11) (11) (12) (13) (14) (15) (15) (16) (16) (16) (16) (16) (16) (16) (16	(B13) or (C1) s on Living F Iron (C4) in in Tilled So Plants (D1) (aarks)	Roots (C3) pils (C6) LRR A)	Secondary Indicators (minimum of two requests) 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)
rimary Indi Surface V High Wat Saturatio Water Mi Sediment Drift depice Inundatic Sparsely eld Observ urface Vater Table P	Irology Indi cators (min Water (A1) Water (A3) Arks (B1) Ar Deposits (B Ar Deposi	2) 2) 4) Aerial Imanoncave Sur	ogery (B7) rface (B8) No No No	W 1,	ater-Staine 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhiz resence of I escent Iron I united or Si ther (Explai	d Leaves (4B) (11) (11) (12) (13) (14) (15) (15) (16) (16) (16) (16) (16) (16) (16) (16	(B13) or (C1) s on Living F Iron (C4) in in Tilled So Plants (D1) (aarks)	Roots (C3) pils (C6) LRR A)	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)





Project/Site: 4th & Miller				City/Cou	inty:	Oregon City	Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC							State: OR Sampling Point: SP_03
nvestigator(s): Joe Bettis				Sectio	n, To	wnship, R	ange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope			Local re	elief	(concave,	convex, none): concave Slope: 0.0 % / 0.
ubregion (LRR): MLRA 2			Lat.: 45	5.345169	993		Long.: -122.6217651 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ck outcrop	complex m					NWI classification:
e climatic/hydrologic conditions on					Yes	. ● No	
re Vegetation, Soil	, or Hydro		significantly				Normal Circumstances" present? Yes No
	, or Hydro	_	10				production and a second
\re Vegetation			naturally pro nowing sa				eded, explain any answers in Remarks.) rations, transects, important features, etc
Hydrophytic Vegetation Present?	Yes O	No 💿				Sampled A	
Hydric Soil Present?	Yes 🔾	No 💿					V () N- (8)
Wetland Hydrology Present?	Yes 🔾	No 💿		w	vithin	a Wetland	d? les U NO U
Remarks:				•			
	.10						
VEGETATION - Use scien	tific nam	es of plar	nts.	Domin. Specie			
Tree Stratum (Plot size:	ĭ		Absolute % Cover	Rel.Str		Indicator	Dominance Test worksheet:
1, Plot size.			% Cover		0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2,					0%		That are OBL, FACW, or FAC: (A)
3,					0%		Total Number of Dominant Species Across All Strata: 1 (B)
4.			0		0%		Species Actoss All Sciata;
			0	= Total	Cove	er	Percent of dominant Species That Are ORL FACW or FAC: 0.0% (A/B)
Sapling/Shrub Stratum (Plot size:	3 m)					That Are OBL, FACW, or FAC: 0.0% (A/B)
1, Rubus armeniacus			100	100		FACU	Prevalence Index worksheet:
2					20%	-	Total % Cover of: Multiply by:
3					0%_ 0%		OBL species x 1 =
4 5.					0%		FACW species 0 x 2 = 0
-			100	= Total			FACI species 0 x 3 = 0 FACI species 100 x 4 = 400
Herb Stratum (Plot size:)		100	- Iotai	COVE	er .	0
1				0.0	0%_		ore species x y =
2,				$\overline{}$	0%_		Column Totals: 100 (A) 400 (B)
3					0%		Prevalence Index = B/A = 4.000
4					20%		Hydrophytic Vegetation Indicators:
5					0% 0%		☐ 1 - Rapid Test for Hydrologic Vegetation
6					0%		2 - Dominance Test is > 50%
8			0		0%		3 - Prevalence Index is ≤3.0 ¹
9,			0	0.0	0%		4 - Morphological Adaptations 1 (Provide supporting
10			_ 0	0.0	0%		data in Remarks or on a separate sheet)
11					0%		5 - Wetland Non-Vascular Plants 1
			0	= Total	Cove	er	Problematic Hydrophytic Vegetation 1 (Explain)
Woody Vine Stratum (Plot size:		_)			201		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,					0%		Hydrophytic
2				1.0	0%_		Vegetation Va- O Na (
% Bare Ground in Herb Stratum	: 100		0	= Total	Cove	er	Present? Yes No •
Remarks:							1
*Indicator suffix = National sta							

US Army Corps of Engineers





Depth		Matrix		Redox Features		
(inches)	Color (9/6	Color (moist) % Type 1 Lo	Cib I see	Remarks
0-5	10YR	2/2	100%		Silt Loam	
5-20	10YR	3/1			Silty Clay Loam	
				ed Matrix, CS=Covered or Coated Sand Grains	² Location: PL=Pore Lining.	NO. OF SCHOOL SECTION
		(Applical	ble to all LRF	Rs, unless otherwise noted.)		oblematic Hydric Soils ³ :
Histosol Histosol	(A1) ipedon (A2)			Sandy Redox (S5) Stripped Matrix (S6)	2 cm Muck (A	to the second team
Black His				Loamy Mucky Mineral (F1) (except in ML	RA 1) Red Parent Ma	
_	n Sulfide (A4)			Loamy Gleyed Matrix (F2)	KA 1) Uther (Explain	III Iveriiai KS)
	Below Dark S		11)	Depleted Matrix (F3)		
	rk Surface (A:			Redox Dark Surface (F6)	3Indicators of hydro	phytic vegetation and
Sandy M	uck Mineral (S	51)		Depleted Dark Surface (F7)	wetland hydrolog	y must be present,
	leyed Matrix (Redox depressions (F8)	unless disturbed	or problematic.
	Layer (if pre	sent):				
Type:					Hydric Soil Present	? Yes O No 💿
Depth (in	ches):				riyane son riesem	i res 🔾 no 🔾
Remarks:						
Remarks: ydrolog Vetland Hy	drology Indi					
ydrolog Vetland Hy Surface	drology Indi licators (mir Water (A1)	imum of	one required	d; check all that apply) Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B)		ndicators (minimum of two require pined Leaves (B9) (MLRA 1, 2, B)
ydrolog Vetland Hy Primary Inc Surface High Wa	drology Indi licators (mir Water (A1) Iter Table (A2	imum of	one required	☐ Water-Stained Leaves (B9) (except ML	RA Water-St 4A, and 4	ained Leaves (B9) (MLRA 1, 2, B)
ydrolog /etland Hydrolog Surface High Wa	drology Indi licators (mir Water (A1) Iter Table (A2	imum of	one required	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B)	RA Water-St 4A, and 4	ained Leaves (B9) (MLRA 1, 2,
ydrolog /etland Hy Primary Inc Surface High Wa	drology Indi dicators (min Water (A1) ater Table (A2 on (A3)	i <u>mum of</u>	one required	☐ Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) ☐ Salt Crust (B11)	RA Water-St 4A, and 4 Drainage Dry Seas	nined Leaves (B9) (MLRA 1, 2, B) Patterns (B10)
ydrolog /etland Hy /etland Hy Surface High Wa Saturatic Water M Sedimen	drology Indi licators (min Water (A1) Iter Table (A2 on (A3) larks (B1)	i <u>mum of</u>	one required	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio	ained Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) on Water Table (C2)
ydrolog //etland Hy //mary Inc High Wa Saturatic Water M Sedimen Drift dep	drology Indi dicators (min Water (A1) ater Table (A2 on (A3) larks (B1) at Deposits (B	<u>iimum of</u>) 2)	one require	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp	nined Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9)
ydrolog /etland Hy Primary Inc Surface High Wa Sedimen Drift dep	drology Indi dicators (min Water (A1) hter Table (A2 on (A3) larks (B1) ht Deposits (B oosits (B3)	<u>iimum of</u>) 2)	one require	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow A	nined Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) On Water Table (C2) In Visible on Aerial Imagery (C9) hic Position (D2)
ydrolog // rolog / rol	drology Indi dicators (mir Water (A1) eter Table (A2 on (A3) larks (B1) et Deposits (B oosits (B3) et or Crust (B4 oosits (B5) Soil Cracks (B	imum of 2) 6)		Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4)	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow / FAC-neut	nined Leaves (B9) (MLRA 1, 2, HB) Patterns (B10) On Water Table (C2) In Visible on Aerial Imagery (C9) hic Position (D2) Aquitard (D3)
ydrolog /etland Hy rimary Inc Surface High Wa Saturati Water M Sedimen Drift dep Algal Ma Iron Dep	dicology Indi dicators (mir Water (A1) ther Table (A2 on (A3) larks (B1) at Deposits (B posits (B3) at or Crust (B4 posits (B5)	imum of 2) 6)		Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow J 66) FAC-neut N Raised Ai	nined Leaves (B9) (MLRA 1, 2, HB) Patterns (B10) On Water Table (C2) In Visible on Aerial Imagery (C9) hic Position (D2) Aquitard (D3) ral Test (D5)
ydrolog /etland Hy /et	drology Indi dicators (mir Water (A1) tter Table (A2 on (A3) larks (B1) ht Deposits (B sosits (B3) ht or Crust (B4) sosits (B5) Soil Cracks (B ion Visible on Vegetated Co	imum of) 2) 3) 6) Aerial Ima	gery (B7)	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (1811) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow J 66) FAC-neut N Raised Ai	ained Leaves (B9) (MLRA 1, 2, B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) hic Position (D2) kquitard (D3) ral Test (D5) nt Mounds (D6) (LRR A)
ydrolog Vetland Hyv Primary Inc Surface High Wa Sedimen Drift dep Algal Ma Iron Dep Surface Inundati Sparsely ideld Observa	drology Indi dicators (mir Water (A1) ter Table (A2 on (A3) larks (B1) bit Deposits (B oosits (B3) ot or Crust (B4 oosits (B5) Soil Cracks (B on Visible on Vegetated Cc	imum of) 2) 3) 6) Aerial Ima	gery (87) rface (88)	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow J 66) FAC-neut N Raised Ai	ained Leaves (B9) (MLRA 1, 2, B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) hic Position (D2) kquitard (D3) ral Test (D5) nt Mounds (D6) (LRR A)
lydrolog Vetland Hy Primary Inc Surface High Wa Saturati Water M Drift dep Algal Ma Iron Dep Surface	drology Indi dicators (mir Water (A1) ter Table (A2 on (A3) larks (B1) ht Deposits (B posits (B5) soil Cracks (B foor Visible on Vegetated Co vations: ir Present?	imum of) 2) 6) Aerial Ima	gery (87) face (88)	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow J 66) FAC-neut N Raised Ai	ained Leaves (B9) (MLRA 1, 2, 18) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) hic Position (D2) squitard (D3) ral Test (D5) nt Mounds (D6) (LRR A) ave Hummocks (D7)
ydrolog Vetland Hyv Primary Inc Surface High Wa Sedimen Drift dep Algal Ma Iron Dep Surface Inundati Sparsely ideld Observ	drology Indi licators (mir Water (A1) tter Table (A2 on (A3) larks (B1) sossits (B3) tt or Crust (B4 cosits (B5) Soil Cracks (B ion Visible on Vegetated Co vations: ir Present?	2) 6) Aerial Ima	gery (87) fface (88) No •	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks) Depth (inches):	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow J 66) FAC-neut N Raised Ai	ained Leaves (B9) (MLRA 1, 2, HB) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) hic Position (D2) kquitard (D3) ral Test (D5) nt Mounds (D6) (LRR A) ive Hummocks (D7)
ydrolog /etland Hyv Primary Inc Surface High Wa Sedimen Drift dep Algal Ma Iron Dep Surface Inundati Sparsely ield Observ urface Wate aturation Princludes cap	drology Indi licators (mir Water (A1) ter Table (A2 on (A3) arks (B1) th Deposits (B oosits (B3) Soil Cracks (B ion Visible on Vegetated Co vations: ir Present? Present?	imum of) 2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) rface (B8) No No No No No No No No	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks) Depth (inches):	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow I Raised At Frost Hea	ained Leaves (B9) (MLRA 1, 2, HB) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) hic Position (D2) kquitard (D3) ral Test (D5) nt Mounds (D6) (LRR A) ive Hummocks (D7)
ydrolog /etland Hy /et	drology Indi licators (mir Water (A1) ter Table (A2 on (A3) arks (B1) th Deposits (B oosits (B3) Soil Cracks (B ion Visible on Vegetated Co vations: ir Present? Present?	imum of) 2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) rface (B8) No No No No No No No No	Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks) Depth (inches): Depth (inches):	RA Water-St 4A, and 4 Drainage Dry Seas Saturatio (C3) Geomorp Shallow I Raised At Frost Hea	ained Leaves (B9) (MLRA 1, 2, HB) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) hic Position (D2) kquitard (D3) ral Test (D5) nt Mounds (D6) (LRR A) ive Hummocks (D7)





Project/Site: 4th & Miller			ity/County:	Oregon City	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_04
nvestigator(s): Joe Bettis			Section, To	wnship, R	tange: \$ 01 T_3S R_1E
Landform (hillslope, terrace, etc.)	: Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.
ubregion (LRR): MLRA 2		Lat.: 45	.34515266		Long.: -122.6218001 Datum: WGS 84
oil Map Unit Name: Xerochrepts-R	ade autoren aansnias ma				NWI classification:
climatic/hydrologic conditions of				. ● No	
re Vegetation, Soil		significantly d			0 0
					production and produc
re Vegetation, Soil	, or Hydrology	naturally prob	olematic?	(If ne	eded, explain any answers in Remarks.)
ummary of Findings - A	ttach site map sh	owing sar	mpling p	oint loc	ations, transects, important features, etc
Hydrophytic Vegetation Present?	Yes ⊙ No ○				
Tydric Soil Present?	Yes ● No ○		Is the	Sampled A	
Wetland Hydrology Present?	Yes No		within	a Wetland	_{d?} Yes [®] No [©]
Remarks:	100 100				
Remarks:					
VEGETATION - Use scien	ntific names of plan	ts	Dominant		
VEGETATION - 030 3010	Tarre rarries or plan		Species?		In the state of
Tree Stratum (Plot size:)		Rel.Strat. Cover	Indicator Status	
1,		0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2,			0.0%		
3,		0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4		0	0.0%		
(plant		_ 0 :	= Total Cove	er	Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
Sapling/Shrub Stratum (Plot size	2: 3 m)	-			
1 Rubus armeniacus			100.0%	FACU	Prevalence Index worksheet:
3.			0.0%		Total % Cover of: Multiply by:
4.			0.0%		OBL species 0 x 1 = 0 FACW species 25 x 2 = 50
5.		0	0.0%		
			= Total Cove		75 700
Herb Stratum (Plot size: 1 m)		- 10tai cov		
1 Equisetum telmateia		25	✓ 100.0%	FACW	ort species x 3 =
2,		0	0.0%		
3			0.0%		Prevalence Index = B/A = 3.500
4			0.0%		Hydrophytic Vegetation Indicators:
5			0.0%		1 - Rapid Test for Hydrologic Vegetation
6		0	0.0%		2 - Dominance Test is > 50%
8		0	0.0%		3 - Prevalence Index is ≤3.0 1
9		0	0.0%		4 - Morphological Adaptations 1 (Provide supporting
10			0.0%		data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants 1
11			0.0%		
		25 :	= Total Cove	er	✓ Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		_ n.no:		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,			0.0%		Hydrophytic
2			0.0%		Vegetation
		0 :	= Total Cove	er	Present? Yes No O
% Bare Ground in Herb Stratur	n:_75				<u> </u>
Remarks:					
Rubus armeniacus weakly rooted	in wetland; Problematic	Hydrophytic \	egetation in	ndicator us	sed; hydrology and soil present.
*Indicator suffix = National sta	atus or professional decision	assigned beca	use Regional	status not d	lefined by PWS.

US Army Corps of Engineers





	iption: (Des	cribe to	are depart	needed to doc	ument the	illulcator o	or confirm	the absence of indicators.)	
Depth		Matrix			Redox Fe	eatures			
(inches)	Color (r	noist)	%	Color (mo	ist) o	6 Type	Loc	Z 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	
			<u> </u>						
dric Soil I	ndicators:		on hines house	uced Matrix, CS:	therwise no		d Grains	**************************************	
Black Histi Hydrogen	oedon (A2)	Surface (A	11)	Strippe Loamy Deplete	Redox (S5) ed Matrix (S6 Mucky Miner Gleyed Matri ed Matrix (F3	ral (F1) (exo ix (F2)	ept in MLR	2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks)	
Sandy Mu	k Surface (A1 ck Mineral (S yed Matrix (S	(1)		_ Deplete	Dark Surface ed Dark Surfa depressions	ace (F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
strictive La	ayer (if pres	sent):							
Depth (inch	land.							Hydric Soil Present? Yes No	
-	nes):							nyunc son Present/ Yes 🥹 No 🖰	
marks:	,							nyunc son Present/ Yes © No C	
marks: drology	y rology Indi								
drology etland Hyd imary Indi	rology Indicators (min	imum of	one requir		er-Stained Le		except MLR	Secondary Indicators (minimum of tw	
drology tland Hyd mary India Surface W High Wat	rology Indicators (min Vater (A1) er Table (A2)	imum of	one requir	☐ Wate 1, 2,	er-Stained Le 4A, and 4B)		except MLR	Secondary Indicators (minimum of two Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)	
drology tland Hyd mary Indi Surface W High Wate Saturation	rology Indicators (min Vater (A1) er Table (A2)	imum of	one requir	☐ Wate 1, 2,	er-Stained Le 4A, and 4B) Crust (B11)	aves (B9) (e	except MLR	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10)	
drology etland Hyd imary India Surface W High Wate Saturation Water Ma	rology India cators (min Vater (A1) er Table (A2) n (A3) urks (B1)	imum of	one requir	Wate 1, 2,	er-Stained Le 4A, and 4B) Crust (B11) atic Invertebr	aves (B9) (e ates (B13)	except MLR	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)	2,
drology etland Hyd etland Hyd Surface W High Wate Saturation Water Ma Sediment	rology India cators (min Vater (A1) er Table (A2) n (A3) orks (B1) Deposits (B2)	imum of	one requir	Wate 1, 2, Salt (Aqua	er-Stained Le 4A, and 4B) Crust (B11) atic Invertebr ogen Sulfide	aves (B9) (e ates (B13) Odor (C1)		Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery	2,
emarks: drology etland Hyd imary Indi) Surface W) High Wat) Saturatio) Water Ma) Sediment) Drift depo	rology Indicators (min vater (A1) er Table (A2) in (A3) Triss (B1) Deposits (B2) soits (B3)	<u>imum of</u>) 2)	one requir	Wate 1, 2, Salt (Aqua Hydro	er-Stained Lea 4A, and 4B) Crust (B11) stic Invertebra ogen Sulfide ized Rhizosph	aves (B9) (e ates (B13) Odor (C1) neres on Livi	ing Roots (Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) Geomorphic Position (D2)	2,
emarks: Indrology In	rology Indicators (min Vater (A1) er Table (A2) nr(A3) nr(A5) Deposits (B1) Deposits (B3) or Crust (B4)	<u>imum of</u>) 2)	one requir	Wate 1, 2, Salt (Aqua Hydro Oxidi Prese	er-Stained Lei 4A, and 4B) Crust (B11) atic Invertebri ogen Sulfide ized Rhizosph ence of Redu	aves (B9) (e ates (B13) Odor (C1) neres on Livi ced Iron (C4	ing Roots (Secondary Indicators (minimum of tw. Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C2) Shallow Aquitard (D3)	2,
erdrology etland Hyd imary India Surface W High Wata Sadiment Water Ma Sediment Drift depc Algal Mat Iron Depc	rology Indicators (min Vater (A1) er Table (A2) n (A3) Deposits (B1) Do cr Crust (B4) or Crust (B4)	i <u>mum of</u>) 2)	one requir	Wate 1, 2, Salt (Aqua Hydri Prese	er-Stained Le. 4A, and 4B) Crust (B11) stic Invertebri ogen Sulfide ized Rhizosph ence of Redu ent Iron Redu	aves (B9) (e ates (B13) Odor (C1) neres on Livi ced Iron (C4 ction in Tille	ing Roots (†) ed Soils (C6	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5)	2,
drology etland Hyd imary Indii Surface W High Wate Saturation Water Ma Drift depor	rology Indicators (min Vater (A1) er Table (A2) orks (B1) Deposits (B3) or Crust (B4 osits (B5)	imum of) 2))		Wate 1, 2, Salt (Aqua Hydn Oxidi Prese Rece	er-Stained Le. 4A, and 4B) Crust (B11) atic Invertebriogen Sulfide ized Rhizosphence of Redu ent Iron Redu ted or Stressi	ates (B13) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ed Plants (D	ing Roots (†) ed Soils (C6	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
drology etland Hyd imary Indi Surface W High Wate Saturation Water Ma Drift depo Algal Mat Iron Depc Surface S Inundatio	rology Indicators (min Vater (A1) er Table (A2) n (A3) Deposits (B1) Do cr Crust (B4) or Crust (B4)	imum of) 2)) 6) Aerial Ima	igery (B7)	Wate 1, 2, Salt (Aqua Hydn Oxidi Prese Rece	er-Stained Le. 4A, and 4B) Crust (B11) stic Invertebri ogen Sulfide ized Rhizosph ence of Redu ent Iron Redu	ates (B13) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ed Plants (D	ing Roots (†) ed Soils (C6	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5)	2,
rdrology etland Hyd imary India Surface W High Wab Sadiment Drift depo Algal Mat Iron Depo Surface S Inundatio Sparsely W	rology Indicators (min Vater (A1) er Table (A2) in (A3) in (A3	imum of) 2)) 6) Aerial Ima	igery (B7)	Wate 1, 2, Salt (Aqua Hydn Oxidi Prese Rece	er-Stained Le. 4A, and 4B) Crust (B11) atic Invertebriogen Sulfide ized Rhizosphence of Redu ent Iron Redu ted or Stressi	ates (B13) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ed Plants (D	ing Roots (†) ed Soils (C6	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
emarks: rdrology etland Hyd imary Indi] Surface W] High Wato] Saturation] Sadiment] Drift depo] Algal Mat] Iron Depo] Surface S] Inundatio] Sparsely W	rology Indicators (min Vater (A1) Per Table (A2) In (A3) Deposits (B3) For Crust (B4) Sits (B5) For Crust (B4)	imum of) 2)) Aerial Ima	igery (B7)	Wate 1, 2, Salt () Salt () Aqua Hydn Oxidi Press	er-Stained Le. 4A, and 4B) Crust (B11) atic Invertebriogen Sulfide ized Rhizosphence of Redu ent Iron Redu ted or Stressi	ates (B13) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ed Plants (D	ing Roots (†) ed Soils (C6	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
emarks: rdrology etland Hyd imary India Surface W High Wab Sadiment Drift depo Algal Mat I ron Depo Surface S I nundatio Sparsely eld Observarface Water	rology Indicators (min Vater (A1) er Table (A2) nrks (B1) Deposits (B3) or Crust (B4) soits (B5) oil Cracks (Bin Visible on av Vegetated Co ations: Present?	imum of) 2) 6) Aerial Imanorave Sui	igery (B7) rface (B8)	Wate 1, 2, Salt (Aqua Hydri Oxidi Prese Stuni Othe	er-Stained Lei 4A, and 4B) Crust (B11) itic Invertebriogen Sulfide ized Rhizosphence of Redu int Iron Redu ted or Stressier (Explain in	ates (B13) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ed Plants (D	ing Roots (†) dd Soils (C6 11) (LRR A)	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost Heave Hummocks (D7)	2,
ydrology etland Hyd rimary Indi Surface W High Wate Sediment Drift depo Algal Mat I non Depo Surface S I nundatio Sparsely V eld Observariace Water	rology Indicators (min /ater (A1) er Table (A2) er Table (A2) in (A3) rks (B1) Deposits (B2) of Crust (B4) osits (B5) oil Cracks (Bi on Visible on a Vegetated Co ations: Present?	imum of) 2) 6) Aerial Imanorave Sui	igery (B7) rface (B8) No (Wate 1, 2, Salt (Aqua Hydrn Oxidi Press Stuni Othe Dep	er-Stained Lee 4A, and 4B) Crust (B11) titic Invertebr ogen Sulfide tized Rhizosph ence of Redu ent Iron Redu ted or Stress or (Explain in	ates (813) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ed Plants (D Remarks)	ing Roots (†) dd Soils (C6 11) (LRR A)	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
ydrology etland Hyd imary India Surface W High Wat Sediment Drift depo Algal Mat Iron Depc Surface S Inundatio Sparsely eld Observariace Table Preductation Pree	rology Indicators (min / vater (A1) er Table (A2) in (A3) in (A3) or Crust (B4) in Visible on Vegetated Coations: Present? seent? lary fringe)	imum of) 2) 6) Aerial Imanoncave Sun Yes Yes Yes	ogery (B7) rface (B8) No (No (No (No (Wate 1, 2, Salt (Aqua Hydrin Oxidi Prese Stuni Othe Deg	er-Stained Lee 4A, and 4B) Crust (B11) titic Invertebr ogen Sulfide ized Rhizosph ence of Redu int Iron Redu ted or Stress rr (Explain in pth (inches): pth (inches);	aves (89) (e ates (813) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ded Plants (D Remarks)	ing Roots (4) 4) 4) 6d Soils (C6 11) (LRR A)	Secondary Indicators (minimum of tw Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost Heave Hummocks (D7)	2,
ydrology (etland Hyd imary India Surface W Hyd Surface W Hyd Sediment Drift depo Algal Mat Iron Depc Surface S Inundatio Sparaely Weld Observaurface Water rabe	rology Indicators (min / vater (A1) er Table (A2) in (A3) in (A3) or Crust (B4) in Visible on Vegetated Coations: Present? seent? lary fringe)	imum of) 2) 6) Aerial Imanoncave Sun Yes Yes Yes	ogery (B7) rface (B8) No (No (No (No (Wate 1, 2, Salt (Aqua Hydrin Oxidi Prese Stuni Othe Deg	er-Stained Lee 4A, and 4B) Crust (B11) titic Invertebr ogen Sulfide ized Rhizosph ence of Redu int Iron Redu ted or Stress rr (Explain in pth (inches): pth (inches);	aves (89) (e ates (813) Odor (C1) neres on Livi ced Iron (C4 ction in Tille ded Plants (D Remarks)	ing Roots (4) 4) 4) 6d Soils (C6 11) (LRR A)	Secondary Indicators (minimum of two A	2,





Project/Site: 4th & Miller			с	ity/County:	Oregon City	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC						State: OR Sampling Point: SP_05
Investigator(s): Joe Bettis				Section, To	wnship, Ra	tange: 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
oil Map Unit Name: Xerochrepts-Ro	rck outcron	complex m	nderately stee	n		NWI classification:
re climatic/hydrologic conditions on					o No €	en.
Are Vegetation, Soil	, or Hydro		significantly of			Normal Circumstances" present? Yes No
Are Vegetation, Soil	, or Hydro		naturally prob			
1000 100 - 1000 - 1000 1000 1000 1000 1						eded, explain any answers in Remarks.) cations, transects, important features, etc
Hydrophytic Vegetation Present?	Yes 🔾	No 💿				
Hydric Soil Present?	Yes O	No 💿			Sampled A	v () v- (a)
Wetland Hydrology Present?	Yes O	No 💿		within	a Wetland	d? res O No O
Remarks:						
VEGETATION - Use scien	tific nam	es of plar	nts.	Dominant		
		•	Absolute	Species? Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		% Cover	Cover	Status	Number of Dominant Species
1,			0	0.0%		That are OBL, FACW, or FAC:0(A)
2,				0.0%		Total Number of Dominant
3,				0.0%		Species Across All Strata:1(B)
4				0.0%		Percent of dominant Species
Sapling/Shrub Stratum (Plot size:	3 m)		= Total Cov	er	That Are OBL, FACW, or FAC: 0.0% (A/B)
1, Rubus armeniacus			0	0.0%	FACU	Prevalence Index worksheet:
2,			0	0.0%		Total % Cover of: Multiply by:
3				0.0%		OBL species
4 5.				0.0%		FACW species 0 x 2 = 0
J					_	FAC species x 3 =
Herb Stratum (Plot size:)			= Total Cov	er	FACU species x 4 =
1.			0	0.0%		ort species x 3 =
2,			0	0.0%		column Totals:0 (A)0 (B)
3				0.0%		Prevalence Index = B/A = 0.000
4				0.0%		Hydrophytic Vegetation Indicators:
5				0.0%		☐ 1 - Rapid Test for Hydrologic Vegetation
6				0.0%		2 - Dominance Test is > 50%
8			0	0.0%		3 - Prevalence Index is ≤3.0 1
9,			0	0.0%		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10				0.0%		5 - Wetland Non-Vascular Plants
11.				0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
		,	0	= Total Cov	er	
Woody Vine Stratum (Plot size:		_)		D 0.000		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,				0.0%		Hydrophytic
				= Total Cov		Vegetation Veg O No O
% Bare Ground in Herb Stratum	. 0			- iotai cov		Present? Tes O No G
	0					I.
Remarks:						
*Indicator suffix = National sta						Life- II Bug

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

US Army Corps of Engineers





Depth		Matrix			Red	lox Featu	res			
(inches)	Color (r		%	Color (moist)	<u>%</u>	Type 1	Loc2	Texture	Remarks
0-12	10YR	3/1	100%						Silt Loam	
12-15	10YR	3/1	99%	10YR	4/4	1%	С	M	Silty Clay Loam	
15-20	10YR	3/1	97%_	10YR	4/4	3%	C	M	Silty Clay Loam	
								<u> </u>		
**	centration. D							ains ² Loc	ation: PL=Pore Lining. M	
	Indicators:	(Applica	ble to all LF)			olematic Hydric Soils ³ :
Histosol (A1) pedon (A2)				ndy Redox i ipped Matri				2 cm Muck (A10	
Black Hist							1) (except	in MLRA 1)		
	Sulfide (A4)				amy Gleyed			,	Culei (Explain	ii roemarks)
_	Below Dark S		11)		pleted Matr					
Thick Dar					dox Dark Si				3Indicators of hydroph	nytic vegetation and
Sandy Mu					pleted Dark dox depress		(F/)		wetland hydrology unless disturbed or	
	eyed Matrix (S				uox depres	sions (ro)			uness distanced of	proberiace.
Restrictive L	ayer (if pre	sent):								
Type:	has).								Hydric Soil Present?	Yes O No 💿
Depth (inc Remarks:										
Remarks:										
Depth (inc Remarks: Iydrology Wetland Hyd	y	cators:								
Remarks: Iydrology Wetland Hyd Primary Indi Surface W	y Irology Indi icators (min Nater (A1)	imum of	one requir	_ v		ed Leaves	(89) (exce	pt MLRA	Secondary Inc	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,
Iydrology Wetland Hyd Primary Indi Surface W	y Irology Indi icators (min Vater (A1) er Table (A2)	imum of	one requir	_ v	Vater-Stain ., 2, 4A, and	ed Leaves d 4B)	(89) (exce	pt MLRA	Secondary Inc Water-Stai 4A, and 48	dicators (minimum of two require- ned Leaves (B9) (MLRA 1, 2, i)
Remarks: Iydrology Wetland Hyd Primary Indi Surface W	y Irology Indi icators (min Water (A1) izer Table (A2) n (A3)	imum of	one requir	□ v 1 □ s	Vater-Stain	ed Leaves d 4B) 311)		pt MLRA	Secondary Inc Water-Stai 4A, and 4B	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,
Iydrology Wetland Hyd Primary Indi Surface V High Wat Saturatio Water Ma	y Irology Indi icators (min Water (A1) izer Table (A2) n (A3)	i <u>mum of</u>)	one requir	□ v 1 □ s □ A	Vater-Stain , 2, 4A, and Salt Crust (B	ed Leaves d 4B) 311) ertebrates	(B13)	pt MLRA	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor	dicators (minimum of two require- ned Leaves (B9) (MLRA 1, 2, i) Vatterns (B10)
Iydrology Wetland Hyd Primary Indi Surface V High Wat Saturatio Water Ma	y Irology Indi icators (min Water (A1) er Table (A2) n (A3) erks (B1) t Deposits (B.	i <u>mum of</u>)	one requir	v 1 s A H	Vater-Staind , 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Si	ed Leaves d 4B) 311) ertebrates ulfide Odo	(B13)		Secondary Inc Water-Stai 4A, and 48 Drainage P Dry Seasor Saturation	dicators (minimum of two requirement Leaves (B9) (MLRA 1, 2, 1) atterns (B10) in Water Table (C2)
Iydrolog: Iydrolog: Wetland Hyd Primary Indi Surface \(\) High Wat Saturatio Water Ma	y Irology Indi cators (min Vater (A1) ver Table (A2) nrks (B1) t Deposits (B; osits (B3)	<u>imum of</u>) 2)	one requir	W 1 S	Vater-Staind , 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Si	ed Leaves d 4B) 311) ertebrates ulfide Odo izospheres	(B13) r (C1) s on Living I		Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi	dicators (minimum of two requirement Leaves (B9) (MLRA 1, 2, 1) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9)
Iydrolog: Iydrolog: Wetland Hyd Surface \(\) High Wat Saturation Water M Sediment Drift dep	y Irology Indi icators (min Water (A1) per Table (A2, n (A3) n (A5) t Deposits (B; osits (B3)	<u>imum of</u>) 2)	one reauir	W 1 S S A C C C C C C C C C	Vater-Stain , 2, 4A, and Salt Crust (B Aquatic Inventy dydrogen Su Oxidized Rhi Presence of	ed Leaves d 4B) B11) ertebrates ulfide Odo izospheres Reduced I	(B13) r (C1) s on Living I	Roots (C3)	Secondary Inc Water-Stail 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Aq	dicators (minimum of two require- ned Leaves (B9) (MLRA 1, 2,) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2)
Iydrolog: Wetland Hyd Primary Indi Surface V High Wat Saturatio Water Me Drift dep Algal Mat	y Irology Indi icators (min Water (A1) Water (A2) or (A3) or (B1) or (B1) or (Crust (B4) osits (B5) ioil (Cracks (B5)	imum of))))))		V 1 S A H C P	Vater-Staine , 2, 4A, and salt Crust (B Aquatic Inve dydrogen Si Oxidized Rhi Presence of Recent Iron	ed Leaves d 4B) B11) ertebrates ulfide Odo izospheres Reduced I Reduction	(B13) r (C1) s on Living I Iron (C4)	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Aq FAC-neutra	dicators (minimum of two require- ned Leaves (B9) (MLRA 1, 2, i) l'atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) uutard (D3)
Iydrolog: Wetland Hyd Primary Indi Surface V High Wat Saturatio Water Me Drift depic Algal Mat Iron Dep Surface S Inundatio	y Irology Indi cators (min Water (A1) Water (A2) orks (B1) to Poosits (B3) or (Trust (B4 osits (B5) Soil Cracks (B on Visible on	imum of) 2) 6) Aerial Ima	igery (B7)	V 1	Vater-Staine , 2, 4A, and salt Crust (B Aquatic Inve dydrogen Si Oxidized Rhi Presence of Recent Iron	ed Leaves d 4B) 311) ertebrates ulfide Odo izospheres Reduced I Reduction Stressed P	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Aq FAC-neutre Raised Ant	dicators (minimum of two require- ned Leaves (B9) (MLRA 1, 2,) batterns (B10) h Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3)
Iydrolog: Wetland Hyd Primary Indi Surface V High Wat Saturatio Water Me Drift depic Algal Mat Iron Dep Surface S Inundatio	y Irology Indi icators (min Water (A1) Water (A2) or (A3) or (B1) or (B1) or (Crust (B4) osits (B5) ioil (Cracks (B5)	imum of) 2) 6) Aerial Ima	igery (B7)	V 1	Vater-Stain, ,, 2, 4A, and salt Crust (B squatic Inve dydrogen St Oxidized Rhi Presence of Recent Iron Stunted or S	ed Leaves d 4B) 311) ertebrates ulfide Odo izospheres Reduced I Reduction Stressed P	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Aq FAC-neutre Raised Ant	dicators (minimum of two requiremed Leaves (B9) (MLRA 1, 2, 1) atterns (B10) at Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3) at Test (D5) Mounds (D6) (LRR A)
Iydrolog Wetland Hyd Primary Indi Surface W High Wat Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely	y Irology Indi cators (min Water (A1) Water (A1) Are Table (A2) In (A3) It Deposits (B: Osits (B3) It Or Crust (B4 Osits (B5) Soil Cracks (B On Visible on Vegetated Cc ations:	imum of) 2) 6) Aerial Ima	ngery (B7) rface (B8)	V 1	Vater-Stain, 2, 4A, and said Crust (B diguatic Investigation of the control of the control of the control of the cent Iron stunted or S other (Explain of the control of the cent Iron stunted or S other (Explain of the cent Iron of the cent	ed Leaves d 4B) 311) ertebrates ulfide Odo izospheres Reduced I Reduction Stressed Pi ain in Rem	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Aq FAC-neutre Raised Ant	dicators (minimum of two requiremed Leaves (B9) (MLRA 1, 2, 1) atterns (B10) at Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3) at Test (D5) Mounds (D6) (LRR A)
Iydrology Wetland Hyd Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift dep Algal Mat Tron Dep Surface S Inundatic Sparsely	y Irology Indi cators (min Water (A1) Water (A1) Are Table (A2) In (A3) It Deposits (B: Osits (B3) It Or Crust (B4 Osits (B5) Soil Cracks (B On Visible on Vegetated Cc ations:	imum of) 2) 6) Aerial Imanoncave Su	igery (B7) rface (B8)	V 1	Vater-Stain, ,, 2, 4A, and salt Crust (B squatic Inve dydrogen St Oxidized Rhi Presence of Recent Iron Stunted or S	ed Leaves d 4B) 311) ertebrates ulfide Odo izospheres Reduced I Reduction Stressed Pi ain in Rem	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Aq FAC-neutre Raised Ant	dicators (minimum of two requiremed Leaves (B9) (MLRA 1, 2, 1) atterns (B10) at Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3) at Test (D5) Mounds (D6) (LRR A)
Iydrolog: Iydrolog: Wetland Hyd Primary Indi Surface V High Wat Sediment Orift dep Algal Mat Iron Dep Surface S Inundatic Sparsely Field Observ Surface Water Water Table P	y Irology Indi icators (min Water (A1) Water (A1) Frable (A2) In (A3) Deposits (B1) Deposits (B3) Fracts (B5) Fracts (B5) Fracts (B5) Fracts (B5) Fracts (B6) Fracts (B7) Frac	imum of) 2) 6) Aerial Imanoncave Su	ngery (B7) rface (B8)	V 1	Vater-Stain, 2, 4A, and said Crust (B diguatic Investigation of the control of the control of the control of the cent Iron stunted or S other (Explain of the control of the cent Iron stunted or S other (Explain of the cent Iron of the cent	ed Leaves d 4B) 311) ertebrates ulfide Odo izospheres Reductior Stressed P ain in Rem	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3) oils (C6) LRR A)	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Ad FAC-neutre Raised Ant Frost Heave	dicators (minimum of two requiremed Leaves (B9) (MLRA 1, 2, 1) Patterns (B10) Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
Iydrolog: Wetland Hyd Primary Indi Surface \(\) High Wat Saturatio Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely Field Observ Fourface Water Table P Saturation Pre	y Irology Indi icators (min Water (A1) Per Table (A2) n (A3) arks (B1) t Deposits (B3) or or Crust (B4 osits (B5) Soil Cracks (B on Visible on Vegetated Co ations: Present? resent?	imum of) 2) 6) Aerial Imanocave Su Yes Yes	igery (B7) rface (B8)	V 1	Vater-Stain , 2, 4A, and ialt Crust (B diquatic Inved lydrogen Si exidized Rhi Presence of Recent Iron Stunted or S Other (Explain Depth (Inc.)	ed Leaves d 4B) B11) ertebrates ulfide Odo izospheres Reduced I Reductior Stressed P ain in Rem hes):	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3) oils (C6) LRR A)	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorphi Shallow Aq FAC-neutre Raised Ant	dicators (minimum of two requiremed Leaves (B9) (MLRA 1, 2, 1) Patterns (B10) Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
Iydrolog: Iydrolog: Wetland Hyd Primary Indi Surface V High Wat Sediment Orift dep Algal Mat Iron Dep Surface S Inundatic Sparsely Field Observ Surface Water Water Table P	y Irology Indi cators (min Vater (A1) cer Table (A2) orks (B1) t Deposits (B3) or Crust (B4) soils (B3) soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	imum of) 2) 6) Aerial Imanorave Survess Yes Yes	igery (B7) rface (B8) No (V 1	Vater-Stainn, 2, 4A, and alt Crust (B quatic Investigation of the control of the	ed Leaves d 4B) st1) ertebrates ulfide Odo izospheres Reduced i Reductior stressed P ain in Rem hes): hes):	(B13) r (C1) s on Living I Iron (C4) in Tilled Si lants (D1) (Roots (C3) poils (C6) LRR A) Wetla	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorph Shallow Aq FAC-neutre Raised Ant Frost Heav	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2, 1) Patterns (B10) Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
Iydrolog: Iydrolog: Wetland Hydrolog: Wetland Hydrolog: Water Male Water Male Inno Dep Inno Dep Inno Dep Inno Dep Inno Dep Sparsely Sediment Inno Dep Surface S Inno Dep Surface S Saturation Pale P Surface Saturation P Surface Saturat	y Irology Indi cators (min Vater (A1) cer Table (A2) orks (B1) t Deposits (B3) or Crust (B4) soils (B3) soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	imum of) 2) 6) Aerial Imanorave Survess Yes Yes	igery (B7) rface (B8) No (V 1	Vater-Stainn, 2, 4A, and alt Crust (B quatic Investigation of the control of the	ed Leaves d 4B) st1) ertebrates ulfide Odo izospheres Reduced i Reductior stressed P ain in Rem hes): hes):	(B13) r (C1) s on Living I Iron (C4) in Tilled Si lants (D1) (Roots (C3) poils (C6) LRR A) Wetla	Secondary Inc Water-Stai 4A, and 4B Drainage P Dry Seasor Saturation Geomorph Shallow Aq FAC-neutre Raised Ant Frost Heav	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2, 1) Patterns (B10) Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) juitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)





Project/Site: 4th & Miller			City/County:	Oregon Cit	Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_06
nvestigator(s): Joe Bettis			Section, T	ownship, F	Range: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.34516811		Long.: -122.621662 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outcrop complex ma				NWI classification:
e climatic/hydrologic conditions on			90	s 🖲 No	dis.
are Vegetation, Soil		significantly			Normal Circumstances" present? Yes No
		15			The state of the s
Are Vegetation , Soil		naturally pro			eeded, explain any answers in Remarks.)
Summary of Findings - At	ttach site map sh	owing sa	mpling p	oint lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes 💿 No 🔾		Is the	Sampled	Area
Hydric Soil Present?	Yes No				V (a) N- (
Wetland Hydrology Present?	Yes 💿 No 🔾		withi	n a Wetlan	id?
Remarks:					
VEGETATION - Use scien	ntific names of plan	its.	Dominant		
		Absolute	Species? Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:		% Cover		Status	Number of Dominant Species
1,			0.0%		That are OBL, FACW, or FAC:1 (A)
2,			0.0%		Total Number of Dominant
3,			0.0%		Species Across All Strata:
4					Percent of dominant Species
Sapling/Shrub Stratum (Plot size	:_3 m)		= Total Cov	er	That Are OBL, FACW, or FAC: 50.0% (A/B)
1, Rubus armeniacus		75	✔ 100.0%	FACU	Prevalence Index worksheet:
2		0	0.0%		Total % Cover of: Multiply by:
3		_ 0	0.0%		OBL species 0 x 1 = 0
4		0_	0.0%		FACW species 5 x 2 = 10
5			0.0%		FAC species x 3 =0
Herb Stratum (Plot size: 1 m)	75	= Total Cov	er	FACU species
1 Equisetum telmateia		5	1 00.0%	FACW	UPL species $0 \times 5 = 0$
2.			0.0%	TACT	column Totals:80(A)310(B)
3			0.0%		Prevalence Index = B/A = 3.875
4		0	0.0%		Hydrophytic Vegetation Indicators:
5		_ 0	0.0%		1 - Rapid Test for Hydrologic Vegetation
6			0.0%		2 - Dominance Test is > 50%
7			0.0%		3 - Prevalence Index is ≤3.0 ¹
8			0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9		0	0.0%		data in Remarks or on a separate sheet)
11,		0	0.0%		5 - Wetland Non-Vascular Plants 1
***		5	= Total Cov	er	✓ Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1,		_ 0_	0.0%		be present, unless disturbed or problematic.
2		0_	0.0%		Hydrophytic Vegetation
		0	= Total Cov	er	Present? Yes No
% Bare Ground in Herb Stratum	11_95				
Remarks:					
Rubus armeniacus weakly rooted	in wetland; Problematic	Hydrophytic	Vegetation i	ndicator u	ised; hydrology and soil present.
*Indicator suffix = National sta	tus or professional decision	assigned beca	use Regional	status not	defined by PWS.

US Army Corps of Engineers





O-6	ofile Descriptio	n: (Desc	cribe to	the depth i	needed to	document	the indi	cator or co	nfirm the	absence of indicators.)
Inches Color Col	Depth		Matrix			Red	ox Featu	ires		
16-20 10YR 3/1 95% 10YR 4/4 3% C M Silty Clay Loam		Color (m	ioist)	0/0	Color (moist)	9/0	Type 1	Loc2	Texture Remarks
10YR 3/1 95% 10YR 4/4 5% C M Sity Cley Loam 10YR 4/4 5% C M Si	0-6 1	.0YR	3/1	100%						Silt Loam
pps: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix	6-16 1	.0YR	3/1	97%	10YR	4/4	3%	С	М	Silty Clay Loam
Histosic (At) Sandy Redox (55) Sandy Redox Redox Redox Redox (56) Sandy Redox (56)	16-20 1	.0YR	3/1	95%	10YR	4/4	5%	c	м	Silty Clay Loam
Indicators: (Applicable to all LRRs, unless otherwise noted.)						<u> </u>	_			
Black Histic (A3)	dric Soil Indic Histosol (A1)	ators: (Rs, unless	otherwis	e noted. (S5)		ains ² Loc	Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10)
Sandy Gleyed Natrix (\$4)	Black Histic (A: Hydrogen Sulfi Depleted Below	3) de (A4) v Dark Su		11)	Loa Loa Dep	my Mucky I my Gleyed bleted Matri lox Dark Su	Mineral (F Matrix (F ix (F3) urface (F6	2)	in MLRA 1)	Other (Explain in Remarks) 3 Indicators of hydrophytic vegetation and
Type:	Sandy Gleyed I	Matrix (S	4)					(F7)		
rdrology stand Hydrology Indicators: imary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Saturation (A3) Sat Crust (B11) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Seturation (A3) Sat Crust (B11) Drainage Patterns (B10) Dry Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Set Observations: face Water Present? Yes No Depth (inches): Scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	****	(ii pies								
drology tland Hydrology Indicators: mary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA J. 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Irundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:										Wardele Call Descents Vac C No.
Surface Water (A1)										ryunc son Present. Yes 9 No U
Surface Water (A1)	emarks:									ryunc son Present. Yes 🥹 No 🔾
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Spansely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): I5 Uration Present? Yes No Depth (inches): I1 Uratio	marks: drology tland Hydrolog	gy Indic								
Water Marks (81)	drology tland Hydrolog mary Indicator Surface Water	gy Indic rs (minir		one requir	□ w	ater-Staine	ed Leaves	(B9) (exce	ot MLRA	_Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2,
Sediment Deposits (B2)	Irology tland Hydrolog mary Indicator Surface Water High Water Ta	gy Indic rs (minii (A1) ble (A2)		one requir	_ w	ater-Staine , 2, 4A, and	ed Leaves I 4B)	(89) (exœ _j	ot MLRA	Secondary Indicators (minimum of two required Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) d Observations: face Water Present? Yes No Depth (inches): for Table Present? Trable Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Table Present? Yes No Depth (inches): Total Present? Yes No Depth	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3	gy Indic rs (minir (A1) able (A2)		one requir	□ w 1 □ s	ater-Staine , 2, 4A, and alt Crust (B	ed Leaves I 4B) 11)		ot MLRA	Secondary Indicators (minimum of two required Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Algal Mat or Crust (B4)	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (gy Indic rs (minir (A1) able (A2) t) B1)	mum of	one requir	□ w 1 □ s	ater-Staine , 2, 4A, and alt Crust (B quatic Inve	ed Leaves I 4B) 11) rtebrates	(B13)	ot MLRA	Secondary Indicators (minimum of two required Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): Depth (inches): 15 Wetland Hydrology Present? Yes No Depth (inches): 11 Wetland Hydrology Present? Yes No No Depth (inches): 11 Wetland Hydrology Present? Yes No No Depth (inches): 11 Arriation Present? Yes No No Depth (inches): 15 Recent Iron Reduction in Tilled Soils (C6) Raised Ant Mounds (D5) (LRR A) Raised Ant Mounds (D6) (LRR A) Prost Heave Hummocks (D7) Wetland Hydrology Present? Yes No No No Depth (inches): 15 No Depth (inches): 15 Recent Iron Reduction in Tilled Soils (C6) Raised Ant Mounds (D6) (LRR A) Prost Heave Hummocks (D7)	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep	gy Indic rs (minir (A1) ible (A2) i) B1) osits (B2)	mum of	one requir	□ w 1 □ s □ A	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su	ed Leaves I 4B) 11) rtebrates Ilfide Odo	(B13) or (C1)		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)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): ter Table Present? Yes No Depth (inches): uration Present? Yes No Depth (inches): Depth (inches): 15 Wetland Hydrology Present? Yes No Country No Count	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits	gy Indic rs (minir (A1) ble (A2) s) B1) osits (B2)	mum of	one reauir	W 1 S S H	ater-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhi	ed Leaves I 4B) 11) rtebrates ilfide Odo zospheres	(B13) or (C1) s on Living F		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)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): 15 Uration Present? Yes No Depth (inches): 11 Wetland Hydrology Present? Yes No Depth (inches): 11 Scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits of	gy Indic rs (minir (A1) bble (A2) b) B1) osits (B2) (B3) rust (B4)	mum of	one reauir	W 1 S A H O P	ater-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhi resence of I	ed Leaves I 4B) 11) rtebrates ilfide Odo zospheres Reduced I	(B13) or (C1) s on Living F Iron (C4)	Roots (C3)	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)
Sparsely Vegetated Concave Surface (88) Id Observations: face Water Present? Yes No Depth (inches):	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits I Algal Mat or C Iron Deposits	gy Indic rs (minir (A1) bble (A2) b) B1) osits (B2) (B3) rust (B4) (B5)	mum of_	one reauir	W 1 S S A	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizresence of lecent Iron	ed Leaves I 4B) 11) rtebrates alfide Odo zospheres Reduced I Reduction	(B13) or (C1) s on Living F Iron (C4) n in Tilled Sc	Roots (C3)	Secondary Indicators (minimum of two required by Mater-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)
face Water Present? Yes No Depth (inches): Dep	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits (Algal Mat or C Iron Deposits Surface Soil Cr	gy Indic rs (minir (A1) (B1) (B1) osits (B2) (B3) rust (B4) (B5) racks (B6	mum of		W 1 S A H	later-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron I tunted or S	ed Leaves (4B) (11) rtebrates ulfide Odo zospheres Reduced I Reduction tressed P	(B13) or (C1) s on Living f Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two requests) 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)
Face Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): Depth (inches): No Depth (inches): Depth (inches): No Depth (inches): No Depth (inches): Depth (inches): No Depth (inches): Depth (inches): Depth (inches): No Depth (inches): Depth (inches): No Depth (inches): Depth (inc	drology tland Hydrolog mary Indicato Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits (Algal Mat or C Iron Deposits Surface Soil Cr Inundation Vis	gy Indic rs (minir (A1) (b) (B1) osits (B2) (B3) rust (B4) (B5) racks (B6	mum of)) erial Ima	gery (B7)	W 1 S A H	later-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron I tunted or S	ed Leaves (4B) (11) rtebrates ulfide Odo zospheres Reduced I Reduction tressed P	(B13) or (C1) s on Living f Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two required by Mater-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)
ter Table Present? Yes No Depth (inches): 15 uration Present? Yes No Depth (inches): 11 Wetland Hydrology Present? Yes No Depth (inches): 11 Wetland Hydrology Present? Yes No No Depth (inches): 11	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits Algal Mat or C Iron Deposits Surface Soil Cr Induction Vis Sparsely Vege	gy Indic rs (minir (A1) bble (A2) b) B1) osits (B2) (B3) rust (B4) (B5) racks (B6 bible on A tated Cor	mum of)) erial Ima	gery (B7)	W 1 S A H	later-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron I tunted or S	ed Leaves (4B) (11) rtebrates ulfide Odo zospheres Reduced I Reduction tressed P	(B13) or (C1) s on Living f Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two requests) 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)
uration Present? Yes No Depth (inches): 11 Wetland Hydrology Present? Yes No Scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	drology tland Hydrolog mary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits (Algal Mat or C Iron Deposits Surface Soil Ct Inundation Vis Sparsely Vege Id Observation	gy Indic rs (minit (A1) bible (A2) BB1) osits (B2) (B3) rust (B4) (B5) racks (B6 sible on A	mum of)) erial Imancave Sur	gery (87) face (88)	W 1 1	later-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of lecent Iron letther (Expla	ed Leaves 1 4B) 11) rtebrates elfide Odo zospheres Reducted Reductior tressed Pi in in Rem	(B13) or (C1) s on Living f Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two required by Mater-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)
scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	drology etland Hydrolog imany Indicator Surface Water High Water Ta Saturation (A3 Water Marks () Sediment Dep Drift deposits () Algal Mat or C Iron Deposits Surface Soil C() Inundation Vis Sparsely Vege	gy Indic rs (minit (A1) bible (A2) B1) osits (B2) (B3) rust (B4) (B5) racks (B6 acks (B6 acks (B6 acks (B6 acks (B6	mum of)) erial Imancave Sur	gery (B7) face (B8)	W 1	Vater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of lecent Iron tunted or S ther (Expla Depth (inch	ed Leaves 1 4B) 11) rtebrates elfide Odo gospheres Reducted Reductior tressed P in in Rem	(B13) or (C1) s on Living f Iron (C4) n in Tilled Sc lants (D1) (marks)	Roots (C3)	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)
	emarks: ydrology etland Hydrology etland Hydrology surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift deposits (Algal Mat or C I non Deposits (Surface Soil Cr I nundation Vis Sparsely Vegeteld Observation urface Water Presenter Table Present	gy Indic rs (minit r (A1) ible (A2) ible (A2) ible (A2) ible (A2) (B3) rust (B4) (B5) rust (B4) (B5) rust (B4) rust (B4) rust (B4))) erial Imancave Sur Yes Yes	gery (B7) face (B8) No (W 1 S S S S S S S S S	fater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of leecent Iron tunted or S ther (Expla Depth (inch Depth (inch p. 2, 4A)).	d Leaves (4B) (11) (11) (12) (13) (14) (15) (15) (16) (16) (16) (16) (16) (16) (16) (16	(B13) or (C1) s on Living F Iron (C4) n in Tilled Sc lants (D1) (narks)	Roots (C3) iils (C6) LRR A)	Secondary Indicators (minimum of two requests) 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)
	emarks: /drology etland Hydrolog imary Indicator Surface Water Hydrolog Surface Water Garage	gy Indic rs (minit (A1) B1) B1) B3) B3) Rust (B4) (B5) Racks (B6 Facks (B6 F) erial Imancave Sur Yes Yes	gery (87) face (88) No (No (No (W 1 S S S S S S S S S	fater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of leecent Iron tunted or S ther (Expla Depth (inch Dept	ed Leaves (4B) (11) (11) (11) (12) (13) (14) (15) (15) (16) (16) (17) (17) (17) (17) (17) (17) (17) (17	(B13) or (C1) s on Living F Iron (C4) in Tilled So lants (D1) (arks)	Roots (C3) bils (C6) LRR A) Wetla	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 Aquitad (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost Heave Hummocks (D7)
	emarks: /drology etland Hydrolog imary Indicator Surface Water Hydrolog Surface Water Garage	gy Indic rs (minit (A1) B1) B1) B3) B3) Rust (B4) (B5) Racks (B6 Facks (B6 F) erial Imancave Sur Yes Yes	gery (87) face (88) No (No (No (W 1 S S S S S S S S S	fater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of leecent Iron tunted or S ther (Expla Depth (inch Dept	ed Leaves (4B) (11) (11) (11) (12) (13) (14) (15) (15) (16) (16) (17) (17) (17) (17) (17) (17) (17) (17	(B13) or (C1) s on Living F Iron (C4) in Tilled So lants (D1) (arks)	Roots (C3) bils (C6) LRR A) Wetla	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 Aquitad (D3) FAC-neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost Heave Hummocks (D7)





Project/Site: 4th & Miller				ity/	County	Oregon City	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC							State: OR Sampling Point: SP_07
nvestigator(s): Joe Bettis				Se	ection, T	ownship, R	ange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope			Loc	al relief	(concave,	convex, none): Concave Slope: 0.0 % / 0
ubregion (LRR): MLRA 2			Lat.: 45	5.34	524952		Long.: -122.6216016 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ck outcron	complex. m	oderately stee	ep			NWI classification:
e climatic/hydrologic conditions on					Ye	s • No (en!
re Vegetation, Soil	, or Hydro		significantly		urbed?	Are "N	Normal Circumstances" present? Yes No
Are Vegetation, Soil	, or Hydro	_	naturally pro				eded, explain any answers in Remarks.)
The state of the s							eations, transects, important features, etc
Hydrophytic Vegetation Present?	Yes O	No 💿			Te the	Sampled A	Area
Hydric Soil Present?	Yes 🔾	No 💿			200		V () N- (a)
Wetland Hydrology Present?	Yes 🔾	No 💿			withi	n a Wetland	07
Remarks: VEGETATION - Use scier	atific nam	es of alar	nte	De	minant		
AFGETALION - Ose scien	idile Haffi	es oi hiai		Spe	ecles?		I Barriera - Tankardakar
Tree Stratum (Plot size:	ĵ		Absolute % Cover			Indicator Status	
1,			0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC:
2,			0		0.0%		
3,			0		0.0%		Total Number of Dominant Species Across All Strata:
4			0		0.0%		
Sapling/Shrub Stratum (Plot size	3 m)	0	_	otal Cov		Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
1, Rubus armeniacus			95	✓_	100.0%	FACU	Prevalence Index worksheet:
2					0.0%		Total % Cover of: Multiply by:
3					0.0%		OBL species x 1 = 0
4 5.					0.0%	-	FACW species 0 x 2 = 0
J					0.0%		FAC species 0 x 3 = 0
Herb Stratum (Plot size:)		95	= Te	otal Cov	er	FACU species 95 x 4 = 380
1			_ 0_		0.0%		UPL species $0 \times 5 = 0$
2,			0		0.0%		column Totals: 95 (A) 380 (B)
3					0.0%		Prevalence Index = B/A = 4.000
4					0.0%		Hydrophytic Vegetation Indicators:
5					0.0%	-	1 - Rapid Test for Hydrologic Vegetation
6					0.0%		2 - Dominance Test is > 50%
8					0.0%		☐ 3 - Prevalence Index is ≤3.0 ¹
9					0.0%		4 - Morphological Adaptations 1 (Provide supporting
10			0		0.0%		data in Remarks or on a separate sheet)
11					0.0%		5 - Wetland Non-Vascular Plants 1
Woody Vine Stratum (Plot size:		_)	0	= Te	otal Cov	er	Problematic Hydrophytic Vegetation (Explain) 1 Indicators of hydric soil and wetland hydrology must
1.			0		0.0%		be present, unless disturbed or problematic.
2			0		0.0%		Hydrophytic
% Bare Ground in Herb Stratum	: 05		0	= Te	otal Cov	er	Vegetation Present? Yes ○ No ●
Remarks:	95	_					l .
Remarks:							
*Indicator suffix = National sta	tus or profes	sional decision	n assigned beca	use	Regional	status not d	lefined by PWS.

US Army Corps of Engineers





rofile Descri	.paom (Dec			coded to d	ocument	circ intais	cator or cc	ontirm the	absence of maior corsi,
Depth		Matrix			Red	ox Featu			
(inches)	Color (moist)	0/0	Color (n	noist)	0/0	Type 1	Loc2	Texture Remarks
0-10	10YR	3/1	100%						Silt Loam
10-15	10YR	3/1	99%	10YR	4/4	1%	С	M	Silty Clay Loam
15-20	10YR	3/1	97%	10YR	4/4	3%	C	M	Silty Clay Loam
			<u> </u>				\equiv	<u> </u>	
ydric Soil I	ndicators:		n. RM=Reduc	Rs, unless	otherwis	e noted.		ains ²Loc	cation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils3:
Black Histi Hydrogen	pedon (A2)		11)	Strip Loan Loan Depl	ny Gleyed leted Matri	(S6) Mineral (F Matrix (F x (F3)		in MLRA 1)	2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks)
Sandy Mu Sandy Gle	k Surface (Al ick Mineral (S eyed Matrix (S	51) 54)		☐ Depl	ox Dark Su leted Dark ox depress	Surface (Same as		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
	ayer (if pre	sent):							
Type:									Hydric Soil Present? Yes No •
Depth (inchemarks:	hes):								THE STATE OF THE S
emarks:	,								NAME OF THE OWNER OW
emarks:	,, v	cators:							THE STATE OF THE S
ydrology etland Hyd rimary India Surface W	y Irology Indi cators (min	imum of	one require	☐ Wa		d Leaves	(B9) (excep	pt MLRA	Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
ydrology etland Hyd rimary India Surface W High Wata	y Irology Indi cators (min Vater (A1) per Table (A2) n (A3)	imum of	one require	☐ Wa 1, ☐ Sa	ater-Staine 2, 4A, and It Crust (B	d Leaves 4B) 11)		pt MLRA	Secondary Indicators (minimum of two required Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
ydrology (etland Hyd imary India Surface W High Wate Saturation Water Ma	y Irology Indi cators (min Vater (A1) er Table (A2 n (A3) erks (B1)	imum of	one require	☐ Wa 1, ☐ Sal ☐ Aq	ater-Staine 2, 4A, and It Crust (B Juatic Inve	d Leaves 4B) 11) rtebrates	(B13)	pt MLRA	Secondary Indicators (minimum of two required water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)
emarks: ydrology etland Hyd rimary Indi Surface W High Wab Saturation Water Ma	y irology Indi cators (min Vater (A1) per Table (A2) n (A3) arks (B1)	imum of	one require	☐ Wa 1, ☐ Sai ☐ Aq ☐ Hy	ater-Staine 2, 4A, and It Crust (B: Juatic Invel Idrogen Su	d Leaves 4B) 11) rtebrates Ifide Odo	(B13) r (C1)		Secondary Indicators (minimum of two requirements) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
ydrology etland Hyd immary Indi Gurface W High Wat Saturatio Water Ma Sediment Drift depo	y irology Indi cators (min vater (A1) er Table (A2) nrks (B1) Deposits (B; osits (B3)	i <u>imum of</u>) 2)	one require	Wa 1, Sai Aq Hy	ater-Staine 2, 4A, and It Crust (B. uatic Inver drogen Su sidized Rhiz	d Leaves 4B) 11) rtebrates Ifide Odo rospheres	(B13) r (C1) on Living F		Secondary Indicators (minimum of two requirements) 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)
ydrology etland Hyd fimary India Surface W High Wab Saturation Water Ma Sediment Drift depo	virology Indi cators (min Vater (A1) per Table (A2, nrks (B1) Deposits (B; osits (B3)	i <u>imum of</u>) 2)	one require	Wa 1, Sai Aq Aq Ox	ater-Staine 2, 4A, and It Crust (B: juatic Inver drogen Su dized Rhiz esence of f	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I	(B13) r (C1) on Living F Iron (C4)	Roots (C3)	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)
emarks: ydrology etland Hyd rimary Indii Surface W High Watu Saturation Water Ma Sediment Drift depc Algal Mat I ron Depc	y irology Indi cators (min Vater (A1) er Table (A2) en (A3) Deposits (B1) Deposits (B3) or Crust (B4) osits (B5)	i <u>imum of</u>) 2)	one require	Walth	ater-Staine 2, 4A, and It Crust (Bi justic Inver- drogen Su didized Rhiz esence of F cent Iron I	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduced I	(B13) r (C1) on Living F (ron (C4) in Tilled Sc	Roots (C3)	Secondary Indicators (minimum of two required by Mater-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)
emarks: rdrology etland Hyd imary Indi Surface W High Water Ma Sediment Drift depc Algal Mat I ron Depc Surface S	y irology Indi cators (min Vater (A1) er Table (A2) orks (B1) Deposits (B3) or Crust (B4) osits (B5) oil Cracks (B	imum of 2) 6)		Walth	ater-Staine 2, 4A, and It Crust (B: quatic Inver- drogen Su idized Rhiz esence of f scent Iron I unted or Si	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I Reduction tressed Pl	(B13) r (C1) r on Living for (C4) r in Tilled Solants (D1) (Roots (C3)	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)
emarks: rdrology etland Hyd imary Indi Surface W High Water Ma Sediment Drift depo Algal Mat I Iron Depc Surface S I Inundatio	y irology Indi cators (min Vater (A1) er Table (A2) irks (B1) zirks (B3) or Crust (B4) soits (B5) ioil Cracks (B	imum of) 2) 6) Aerial Ima	gery (8 <i>7</i>)	Walth	ater-Staine 2, 4A, and It Crust (Bi justic Inver- drogen Su didized Rhiz esence of F cent Iron I	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I Reduction tressed Pl	(B13) r (C1) r on Living for (C4) r in Tilled Solants (D1) (Roots (C3)	Secondary Indicators (minimum of two required by Mater-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)
ydrology etland Hyd fimary Indie Surface W High Wate Sediment Drift depc Algal Mat Iron Depc Surface S Inundatio	virology Indi cators (min Vater (A1) er Table (A2, nrks (B1) Deposits (B; osits (B3) or Crust (B4 soits (B5) soil Cracks (B on Visible on Vegetated Co	imum of) 2) 6) Aerial Ima	gery (8 <i>7</i>)	Walth	ater-Staine 2, 4A, and It Crust (B: quatic Inver- drogen Su idized Rhiz esence of f scent Iron I unted or Si	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I Reduction tressed Pl	(B13) r (C1) r on Living for (C4) r in Tilled Solants (D1) (Roots (C3)	Secondary Indicators (minimum of two requirements) 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)
ydrology (etland Hyd rimary Indi Surface W High Waturation Water Ma Sediment Drift depo Algal Mat I ron Depo Surface S I nundatio Sparsely V	irology Indi cators (min Vater (A1) er Table (A2 n (A3) Deposits (B: osits (B3) or Crust (B4) osits (B5) oil Cracks (B on Visible on Vegetated Cc ations:	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	Wart, Salanda Aq	ater-Staine 2, 4A, and it Crust (B: juatic Inver drogen Su idized Rhiz esence of I scent Iron I unted or Si her (Explai	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduced I Reduction tressed Pl in in Rem	(B13) r (C1) r on Living for (C4) r in Tilled Solants (D1) (Roots (C3)	Secondary Indicators (minimum of two requirements) 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)
ydrology /etland Hyd /mmary Indi Surface W High Waturation Water Ma Sediment Drift depo Algal Mat Iron Depo Surface S Inundation Sparsely Water Water	Irology Indi cators (min Vater (A1) Per Table (A2, n (A3) Deposits (B; Deposits (B;	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	War 1, Salar	ater-Staine 2, 4A, and it Crust (Bi quatic Inver- idrogen Su cidized Rhiz esence of I ecent Iron I unted or Si her (Explai	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduced I Reduction tressed Pl in in Rem	(B13) r (C1) r on Living for (C4) r in Tilled Solants (D1) (Roots (C3)	Secondary Indicators (minimum of two requirements) 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)
ydrology // rology / retland Hyd / rimary Indi Surface W High Wate Saturation Saturation Drift depo Algal Mat. Iron Depo Surface S Inundatio Sparsely W ield Observar // race Water // race Water // rater Table Pr sturration Pres	y rology Indi cators (min Vater (A1) er Table (A2) n (A3) rrks (B1) c Deposits (B3) oir of Crust (B4) osits (B5) foil Cracks (B on Visible on Vegetated Co ations: Present? resent?	2) 6) Aerial Ima oncave Sur Yes Yes	gery (B7) fface (B8) No •	War 1, Sala Aq Hy Ox Pro Re Sts	ater-Staine 2, 4A, and it Crust (B: quatic Inver idrogen Su idized Rhiz esence of I iccent Iron I unted or Si her (Explai	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduced I Reduction tressed Pl in in Rem	(B13) r (C1) r on Living for (C4) r in Tilled Solants (D1) (Roots (C3) pils (C6) LRR A)	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)
ydrology /etland Hyd Surface W High Wab Sediment Drift depo Algal Mat Iron Depc Surface S Inundatio Sparesely Vield Observatoriace Water Advarr Table Praturation Pres	y Irology Indi cators (min Vater (A1) er Table (A2, n (A3) arks (B1) Deposits (B, osits (B3) or Crust (B4) soit (Sa) oil Cracks (B oil Cracks	2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) fface (B8) No @ No @	War 1, Salar	ater-Staine 2, 4A, and it Crust (Bi quatic Inver- drogen Su- cidized Rhiz esence of I ccent Iron I unted or Si her (Explai	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduction tressed Pl in in Rem nes): nes):	(B13) r (C1) on Living F fron (C4) in Tilled Sc ants (D1) (arks)	Roots (C3) pils (C6) LRR A) Wetli	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)
ydrology fetland Hyd frimary Indi Surface W High Wate Saturation Saturation Drift depo Algal Mat I non Depc Surface S I nundatio Sparsely W ield Observar face Table Praturation Pres	y Irology Indi cators (min Vater (A1) er Table (A2, n (A3) arks (B1) Deposits (B, osits (B3) or Crust (B4) soit (Sa) oil Cracks (B oil Cracks	2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) fface (B8) No @ No @	War 1, Salar	ater-Staine 2, 4A, and it Crust (Bi quatic Inver- drogen Su- cidized Rhiz esence of I ccent Iron I unted or Si her (Explai	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduction tressed Pl in in Rem nes): nes):	(B13) r (C1) on Living F fron (C4) in Tilled Sc ants (D1) (arks)	Roots (C3) pils (C6) LRR A) Wetli	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)





Project/Site: 4th & Miller		Ci	ity/County:	Oregon City	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_08
nvestigator(s): Joe Bettis			Section, To	wnship, R	ange: \$ 01 T_3S R_1E
Landform (hillslope, terrace, etc.)	: Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2			.34519106		Long.: -122.6216026 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Re	ade autoren aansnias ma				NWI classification:
e climatic/hydrologic conditions or				● No C	
re Vegetation, Soil		significantly d			
	_				ional and an annual product
re Vegetation , Soil	, or Hydrology	naturally prob	olematic?	(If ne	eded, explain any answers in Remarks.)
Summary of Findings - A	ttach site map sh	owing sar	mpling p	oint loc	ations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ⊙ No ○				
Hydric Soil Present?	Yes ○ No •		Is the	Sampled A	
Wetland Hydrology Present?	Yes No		within	a Wetland	_{d?} Yes ○ No
Remarks:	100 100				
Remarks:					
VEGETATION - Use scien	ntific names of plan	ts	Dominant		
VEGETATION COC SCIEN	terrie riarries or piari		Species? .		I Barriera Tartera de La constante de
Tree Stratum (Plot size:)	Absolute % Cover	Cover	Indicator Status	0 0
1,		0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2,			0.0%		
3,		0	0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4		0	0.0%		
(nl., tel		_ 0 =	= Total Cove	er	Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)
Sapling/Shrub Stratum (Plot size	: 3 m)		400.000		That Aid Obby The
1, Rubus armeniacus			100.0%	FACU	Prevalence Index worksheet:
2			0.0%		Total % Cover of: Multiply by:
3 4.		0	0.0%		OBL species
5.		0	0.0%		FAC species 10 x 2 = 20 FAC species 5 x 3 = 15
			= Total Cove		00 220
Herb Stratum (Plot size: 1 m)		- Iotal cove		
1 Equisetum telmateia		10	✔ 66.7%	FACW	ort species X 3 -
2 Urtica dioica		5	✓ 33.3%	FAC	column Totals: 95 (A) 355 (B)
3			0.0%		Prevalence Index = B/A = 3.737
4			0.0%		Hydrophytic Vegetation Indicators:
5			0.0%		☐ 1 - Rapid Test for Hydrologic Vegetation
6 7		0	0.0%		✓ 2 - Dominance Test is > 50%
8		0	0.0%		3 - Prevalence Index is ≤3.0 ¹
9,		0	0.0%		4 - Morphological Adaptations 1 (Provide supporting
10		0	0.0%		data in Remarks or on a separate sheet)
11			0.0%		5 - Wetland Non-Vascular Plants 1
		15 :	= Total Cove	er	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,			0.0%		100 T
2			0.0%		Hydrophytic Vegetation
		_ 0 :	= Total Cove	er.	Present? Yes No
% Bare Ground in Herb Stratun	11 85				
Remarks:					
*Indicator suffix = National sta	atus or professional decision	assigned becau	use Regional :	status not d	lefined by FWS.

US Army Corps of Engineers





rofile Descr	iption: (Des	cribe to	are depart	eeded to document	t tile illule	cator or co	ntirm the	absence of make torsi,
Depth	-	Matrix	-	Red	lox Featu	res		
(inches)	Color (r	noist)	0/0	Color (moist)	0/0	Type 1	Loc2	Texture Remarks
0-4	10YR	3/1	100%					Silt Loam
4-20	10YR	3/1	97%	10YR 4/4	3%		М	Silty Clay Loam
			=		_	=		
lydric Soil I Histosol (/	ndicators:			ced Matrix, CS=Covers Rs, unless otherwis Sandy Redox Stripped Matri	se noted.) (S5)		ins ²Loc	ation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10)
Black Histi Hydrogen Depleted			11)	Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark Si	Mineral (F: Matrix (F2 ix (F3) urface (F6)	2)	n MLRA 1)	³ Indicators of hydrophytic vegetation and
Sandy Gle	ck Mineral (5 yed Matrix (5 ayer (if pres	64)		Depleted Dark		F7)		wetland hydrology must be present, unless disturbed or problematic.
Туре:								
								Hydric Soil Present? Yes No •
Depth (incl Remarks:	hes):							Hydric Soil Present? Yes ○ No •
emarks:	,							nyaric soil Present? Yes 🔾 No 😉
emarks: ydrology /etland Hyd	y rology Indi							
ydrology /etland Hyd Primary Indi	/ rology Indi cators (min	imum of	one require	ed; check all that ar	ed Leaves	(B9) (excep	t MLRA	Secondary Indicators (minimum of two requir Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
ydrology /etland Hyd Primary Indi	virology Indicators (min Vater (A1) er Table (A2)	imum of	one require	☐ Water-Stain	ed Leaves d 4B)	(B9) (excep	t MLRA	Secondary Indicators (minimum of two requir
ydrology Vetland Hyd Primary India Surface W	rology Indi cators (min Vater (A1) er Table (A2)	imum of	one require	Water-Stains 1, 2, 4A, and	ed Leaves d 4B) 311)		t MLRA	Secondary Indicators (minimum of two requir Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
ydrology /etland Hyd Surface W High Wab Saturatio Water Ma	rology Indi cators (min Vater (A1) er Table (A2) n (A3) urks (B1)	imum of	one require	Water-Stain 1, 2, 4A, and Salt Crust (B Aquatic Inve	ed Leaves d 4B) 311) ertebrates (ulfide Odor	(B13) r (C1)		Secondary Indicators (minimum of two requir Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
ydrology /etland Hyd Surface V High Watu Saturation Water Man	rology Indi cators (min later (A1) er Table (A2) n (A3) nrks (B1) Deposits (B;	imum of) 2)	one require	Water-Stain 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen St	ed Leaves d 4B) 311) ertebrates (ulfide Odor izospheres	(B13) r (C1) on Living R		Secondary Indicators (minimum of two requir 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)
ydrology /etland Hyd /etland Hyd /etland Hyd /etland Hyd /etland Hyd /etland Surface W /etland Surface W /etland Surface W /etland Hyd /etland Hyd /et	rology Indicators (min Vater (A1) er Table (A2) n (A3) Deposits (B: Disits (B3) or Crust (B4)	imum of) 2)	one require	Water-Stain 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen St Oxidized Rhi	ed Leaves d 4B) B11) ertebrates (ulfide Odor izospheres Reduced I	(B13) r (C1) on Living R ron (C4)	oots (C3)	Secondary Indicators (minimum of two requir 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)
ydrology /etland Hyd /mmary Indi Surface W / High Wate / Saturation Sediment Drift dept Algal Mat Iron Depx	rology Indicators (min Vater (A1) er Table (A2) in (A3) Deposits (B1) Deposits (B3) or Crust (B4)	i <u>mum of</u>) 2)	one require	Water-Stains 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Si Oxidized Rhi Presence of Recent Iron	ed Leaves d 4B) B11) ertebrates (ulfide Odor izospheres Reduced I Reduction	(B13) r (C1) on Living R fron (C4) in Tilled Soi	oots (C3)	Secondary Indicators (minimum of two requii 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)
emarks: ydrology etland Hyd rimary Indi Surface V High Wate Saturation Water Ma Sediment Drift depc Algal Mat Iron Depc Surface S	rology Indi cators (min Vater (A1) er Table (A2) n (A3) Deposits (B1) Deposits (B3) or Crust (B4 osits (B5)	imum of) 2)) 6)		Water-Stain- 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rhi Presence of Recent Iron Stunted or S	ed Leaves d 4B) B11) ertebrates (ulfide Odor izospheres Reduced I Reduction Stressed Pla	(B13) r (C1) on Living Refron (C4) in Tilled Soi	oots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology /etland Hyd /etland Surface V /etland Hyd /et	rology Indicators (min Vater (A1) er Table (A2) in (A3) Deposits (B1) Deposits (B3) or Crust (B4)	imum of) 2)) 6) Aerial Ima	gery (87)	Water-Stains 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Si Oxidized Rhi Presence of Recent Iron	ed Leaves d 4B) B11) ertebrates (ulfide Odor izospheres Reduced I Reduction Stressed Pla	(B13) r (C1) on Living Refron (C4) in Tilled Soi	oots (C3)	Secondary Indicators (minimum of two requii 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)
ydrology fetland Hyd frimary Indi Surface V High Wate Sediment Drift depo Algal Mat Iron Depo Surface S Inundatio Sparsely	rology Indi cators (min Vater (A1) er Table (A2) nrks (B1) Deposits (B: osits (B3) or Crust (B4 Sits (B5) oil Cracks (B in Visible on	imum of) 2)) Aerial Ima oncave Sur	gery (B7) face (B8)	Water-Stain- 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rhi Presence of Recent Iron Stunted or S Other (Expla	ed Leaves d 4B) B11) ertebrates (ulfide Odor izospheres Reduced I Reduction Stressed Pla	(B13) r (C1) on Living Refron (C4) in Tilled Soi	oots (C3)	Secondary Indicators (minimum of two requii 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)
ydrology /etland Hyd Primary Indi Surface W High Wate Sediment Drift depr Algal Mat Iron Depx Surface S Inundatio Sparsely	rology Indicators (min Vater (A1) er Table (A2) n (A3) Deposits (B3) or Crust (B4) sits (B5) oil Cracks (B in Visible on Vegetated Co	imum of) 2) 6) Aerial Ima oncave Sur	gery (B7) face (B8)	Water-Stain- 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rhi Presence of Recent Iron Stunted or S Other (Expla	ed Leaves d 48) 311) ertebrates (ulfide Odor izospheres Reduced II Reduction Stressed Pkain in Remains	(B13) r (C1) on Living Refron (C4) in Tilled Soi	oots (C3)	Secondary Indicators (minimum of two requii 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)
ydrology Jetland Hyd Primary Indi Surface W High Wate Sediment Drift depo Algal Mat Iron Depo Surface S Inundatio	rology Indicators (min Vater (A1) er Table (A2) n (A3) Deposits (B:) or Crust (B4) soits (B5) oil Cracks (B on Visible on Vegetated Cc ations: Present?	imum of) 2)) Aerial Ima oncave Sur	gery (B7) face (B8)	Water-Stain- 1, 2, 4A, and 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rhi Presence of Recent Iron Stunted or S Other (Exple	ed Leaves d 4B) 311) ertebrates (ulfide Odor izospheres Reduced II Reduction Stressed Pla in in Remain hes):	(B13) r (C1) on Living Refron (C4) in Tilled Soi	oots (C3)	Secondary Indicators (minimum of two requii 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)
ydrology /etland Hyd Surface W High Watu Sediment Drift depo Algal Mat Iron Dept Surface S Under Surface S Under Surface S Inundatio Spanely Vield Observ. urface Table Platuration Preincludes Capital	rology Indicators (min later (A1) er Table (A2) n (A3) nrks (B1) Deposits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) expensed Co ations: Present? resent?	imum of 22) 36) Aerial Ima oncave Sur Yes Yes Yes	gery (B7) fface (B8) No © No C	Water-Stain- 1, 2, 4A, and 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Shi Presence of Recent Iron Stunted or S Other (Expla	ed Leaves of 48) sill) rtebrates (ulfide Odor (izospheres Reduced I Reduction in Remz hes): hes): hes):	(B13) r (C1) on Living Riron (C4) in Tilled Soi ants (D1) (L arks)	oots (C3) ils (C6) RR A) Wetla	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)
ydrology /etland Hyd Surface W High Watu Sediment Drift depo Algal Mat Iron Dept Surface S Under Surface S Under Surface S Inundatio Spanely Vield Observ. urface Table Platuration Preincludes Capital	rology Indicators (min later (A1) er Table (A2) n (A3) nrks (B1) Deposits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) expensed Co ations: Present? resent?	imum of 22) 36) Aerial Ima oncave Sur Yes Yes Yes	gery (B7) fface (B8) No © No C	Water-Stain- 1, 2, 4A, and 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rhi Presence of Recent Iron Stunted or S Other (Expla	ed Leaves of 48) sill) rtebrates (ulfide Odor (izospheres Reduced I Reduction in Remz hes): hes): hes):	(B13) r (C1) on Living Riron (C4) in Tilled Soi ants (D1) (L arks)	oots (C3) ils (C6) RR A) Wetla	Secondary Indicators (minimum of two requii 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)
ydrology /etland Hyd Surface W High Watu Sediment Drift depo Algal Mat Iron Dept Surface S Under Surface S Under Surface S Inundatio Spanely Vield Observ. urface Table Platuration Preincludes Capital	rology Indicators (min later (A1) er Table (A2) n (A3) nrks (B1) Deposits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) or Crust (B4 posits (B3) expensed Co ations: Present? resent?	imum of 22) 36) Aerial Ima oncave Sur Yes Yes Yes	gery (B7) fface (B8) No © No C	Water-Stain- 1, 2, 4A, and 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Shi Presence of Recent Iron Stunted or S Other (Expla	ed Leaves of 48) sill) rtebrates (ulfide Odor (izospheres Reduced I Reduction in Remz hes): hes): hes):	(B13) r (C1) on Living Riron (C4) in Tilled Soi ants (D1) (L arks)	oots (C3) ils (C6) RR A) Wetla	Secondary Indicators (minimum of two requii 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)





Project/Site: 4th & Miller				City/	County	Oregon Cit	Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC							State: OR Sampling Point: SP_09
nvestigator(s): Joe Bettis				Sec	tion, T	ownship, R	Range: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope			Loca	l relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2			Lat.: 45	5.345	23439		Long.: -122.6215253 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ck outcron	complex m					NWI classification:
e climatic/hydrologic conditions on					Ye	s • No	et la
Are Vegetation . , Soil .	, or Hydro		significantly				Normal Circumstances" present? Yes No
							To the contract of the contrac
	or Hydro, tach site		naturally pro nowing sa				eeded, explain any answers in Remarks.) cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes 🔾	No 💿				Sampled .	
Hydric Soil Present?	Yes 🔾	No 💿			547 2000		V () N- (A)
Wetland Hydrology Present?	Yes 🔾	No 💿			withi	n a Wetlan	d?
Remarks:		9.8					
VEGETATION - Use scien	tific nam	es of plar	nts.		ninant cles?		
Torre Charles (Plateira)	Ÿ		Absolute	Rel	Strat	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:			% Cover		er 0.0%	Status	Number of Dominant Species
1, 2,				7	0.0%		That are OBL, FACW, or FAC: (A)
3.					0.0%		Total Number of Dominant
4.			0		0.0%		Species Across All Strata:
			0	= To	tal Cov	er	Percent of dominant Species
Sapling/Shrub Stratum (Plot size:	3 m)		_		and)	That Are OBL, FACW, or FAC: 50.0% (A/B)
1, Rubus armeniacus			0		0.0%	FACU	Prevalence Index worksheet:
2,			0_	<u> </u>	0.0%		Total % Cover of: Multiply by:
3				Η-	0.0%		OBL species x 1 =
4 5.				1	0.0%	-	FACW species 5 x 2 = 10
J					0.0%		FAC species x 3 =
Herb Stratum (Plot size: 1 m)		0	= To	tal Cov	er	FACU species $0 \times 4 = 0$
1. Equisetum telmateia			5_	~	50.0%	FACW	UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$
2 Convolvulus arvensis			5	v	50.0%	UPL	column Totals:10(A)35(B)
3			0		0.0%		Prevalence Index = B/A = 3.500
4					0.0%		Hydrophytic Vegetation Indicators:
5				Η_	0.0%	-	☐ 1 - Rapid Test for Hydrologic Vegetation
6				7	0.0%		2 - Dominance Test is > 50%
· -				_	0.0%		☐ 3 - Prevalence Index is ≤3.0 ¹
9					0.0%		4 - Morphological Adaptations ¹ (Provide supporting
10.			0		0.0%		data in Remarks or on a separate sheet)
11			0		0.0%		5 - Wetland Non-Vascular Plants 1
		,	10	= To	tal Cov	er	Problematic Hydrophytic Vegetation 1 (Explain) 1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:		_)	0		0.0%		be present, unless disturbed or problematic.
1, 2				\Box	0.0%		Hydrophytic
				 = To	tal Cov	er	Vegetation
% Bare Ground in Herb Stratum	: 90			_ 10	W		Present? Yes O No O
Remarks:							·
*Indicator suffix = National stat				_			

US Army Corps of Engineers





oil	41000			101.00					pling Point: SP 09
rofile Descr			the depth ne	eeded to docu			nfirm the	absence of indicators.)	
Depth	_	Matrix		01.6.6	Redox Feat	-		-	
(inches)	Color (r		0/0	Color (mois	t) %	Tvpe 1	Loc2	Texture	Remarks
0-9	10YR	3/1	100%			,		Silt Loam	
9-20	10YR	3/1	97%	10YR 4	4 3%		M	Silty Clay Loam	
			CO. PROS. PROS. PROS.	ed Matrix, CS=0	A CONTRACTOR OF THE PARTY OF TH		ains ² Loc	ation: PL=Pore Lining. M=Matri	
		(Applical	ble to all LR	Rs, unless oth		.)		Indicators for Problemat	tic Hydric Soils ³ :
Histosol (pedon (A2)				edox (S5) Matrix (S6)			2 cm Muck (A10) Red Parent Material (T	TC2)
Black Hist					lucky Mineral ((F1) (except i	in MLRA 1)		
_	Sulfide (A4)				leyed Matrix (F			U Other (Explain in Rema	irks)
_	Below Dark S	Surface (A	11)		Matrix (F3)				
	k Surface (A1			Redox D	ark Surface (F	6)		3Indicators of hydrophytic ve	egetation and
_	ck Mineral (S			Depleted	Dark Surface	(F7)		wetland hydrology must h	
_	eyed Matrix (S			Redox de	epressions (F8))		unless disturbed or proble	ematic.
strictive L	ayer (if pres	sent):							
Type:									0 - 0
Depth (inc	hes):							Hydric Soil Present? Y	es 🔾 No 🖲
ydrolog	v								
	lrology Indi	cators:		A H A 100 100					
Primary Indi	icators (min	imum of	one require	d: check all th	at apply)			Secondary Indicator	s (minimum of two red
_	Water (A1) er Table (A2)	v			Stained Leave A, and 4B)	s (B9) (excep	t MLRA	Water-Stained Le 4A, and 4B)	aves (B9) (MLRA 1, 2,
Saturatio				Salt Cr	ust (B11)			☐ Drainage Patterns	s (B10)
Water Ma					c Invertebrates	(R13)		☐ Dry Season Water	
_	Deposits (B2	2)		= .	gen Sulfide Ode	. ,			10.0
Drift dep	and Commence 15	د)			ed Rhizosphere)t- (C2)		on Aerial Imagery (C9)
							(00ts (C3)	Geomorphic Posit	
_	or Crust (B4)			ce of Reduced			Shallow Aquitard	
Iron Dep	5. 5	•			Iron Reductio			FAC-neutral Test	
_	oil Cracks (B				d or Stressed F		LRR A)	Raised Ant Mound	
Inundatio	on Visible on	Aerial Ima	igery (B7)	Other	(Explain in Ren	marks)		Frost Heave Hum	mocks (D7)
_ Sparsely	Vegetated Co	ncave Su	rface (B8)						
ield Observ urface Water		Yes	O No @	Dent	h (inches):		1		
итасе water ater Table Р			O No ®	Бере	, , ,		1		
vater Table P aturation Pre				Бере	h (inches):		Wetla	and Hydrology Present?	Yes O No 💿
includes capil	lary fringe)	1.30	O No ●		h (inches):		<u></u>		
escribe Rec	orded Data	(stream	gauge, mon	itor well, aeri	al photos, pre	evious inspe	ections), if	f available:	
emarks:									





roject/Site: 4th & Miller			City/County:	Oregon Cit	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_10
nvestigator(s): Joe Bettis			Section, To	ownship, R	Range: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2	No.	Lat. 46	5.34520948		Long.: -122.6215423 Datum: WGS 84
	7010 DOLDARDON				
oil Map Unit Name: Xerochrepts-Ro				· (a) ··- (NWI classification:
e climatic/hydrologic conditions on		150		s • No	
re Vegetation, Soil	, or Hydrology 📙 🥴	significantly	disturbed?	Are "I	Normal Circumstances" present? Yes No
re Vegetation \square , Soil \square	, or Hydrology 🗌 ı	naturally pro	blematic?	(If ne	eded, explain any answers in Remarks.)
Summary of Findings - At	tach site map sh	owing sa	mpling p	oint loc	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○		Ye sh	Sampled	Area
Hydric Soil Present?	Yes ● No ○				v (a) v- (
Wetland Hydrology Present?	Yes No		within	n a Wetlan	d? 155 0 110 0
Remarks:					
VEGETATION - Use scier	ntific names of plan	ts.	Dominant		
			Species? Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5 m)	% Cover		Status	
1 Salix lucida		25	100.0%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)
2,		0	0.0%		Total Number of Demirous
3,		0	0.0%		Total Number of Dominant Species Across All Strata:5(B)
4		0	0.0%		
		25	= Total Cov	er	Percent of dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)
Sapling/Shrub Stratum (Plot size	: <u>3 m</u>)				matric obly move, or me.
1 Rubus armeniacus		50	100.0%	FACU	Prevalence Index worksheet:
2			0.0%		Total % Cover of: Multiply by:
30 F			0.0%		OBL species
4 5.			0.0%		FACW species 52 x 2 = 104
-					FAC species
Herb Stratum (Plot size: 1 m)	50	= Total Cov	er	FACU species 50 x 4 = 200
1 Equisetum telmateia		15	₹ 34.1%	FACW	UPL species x 5 =
2. Oenanthe sarmentosa		7	15.9%	OBL	column Totals: 119 (A) 351 (B)
3 Epilobium ciliatum		7	15.9%	FACW	Prevalence Index = B/A = 2.950
4. Rumex crispus		5	11.4%	FAC	Hydrophytic Vegetation Indicators:
5_Convolvulus arvensis		5	11.4%	UPL	1 - Rapid Test for Hydrologic Vegetation
6_Glyceria elata			11.4%	FACW	✓ 2 - Dominance Test is > 50%
7			0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8,			0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9,		0	0.0%		data in Remarks or on a separate sheet)
10		0	0.0%		5 - Wetland Non-Vascular Plants 1
11,		44	= Total Cov	er	Problematic Hydrophytic Vegetation 1 (Explain)
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1.		0	0.0%		be present, unless disturbed or problematic.
2.		0	0.0%		Hydrophytic
		0	= Total Cov	er	Vegetation Present? Yes No
% Bare Ground in Herb Stratum	ii 60				12 00000000
Remarks:					1
remarks:					

US Army Corps of Engineers





rofile Descr	iption: (De	scribe to	ane depair.	reeded to t	locument	the mai	cator or co	nfirm the	absence of indicators.)
Depth		Matrix				ox Featu			
(inches)	Color (moist)	º/o	Color (r	moist)	0/0	Type 1	Loc2	Texture Remarks
0-5	10YR	3/1	100%						Silt Loam
5-10	10YR	3/1	97%	10YR	4/4	3%	С	М	Silty Clay Loam
10-20	10YR	3/1	95%	10YR	4/4	5%	C	М	Silty Clay Loam
					_				
ydric Soil I Histosol (RRs, unless	otherwis dy Redox (e noted. S5)		ains ² Loc	cation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10)
Black Hist Hydrogen Depleted	Sulfide (A4) Below Dark S	Surface (A	11)	Loai	my Gleyed eleted Matri	Mineral (F Matrix (F x (F3)		in MLRA 1)	a out (Expan in remainly)
Sandy Mu Sandy Gle	k Surface (A: ck Mineral (S eyed Matrix (51) 54)		☐ Dep	lox Dark Su eleted Dark lox depress	Surface (³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
estrictive L Type:	ayer (if pre	sent):							
. /									Hydric Soil Present? Yes No
Depth (inclements:	hes):								Typin Sun Frederic Feb.
emarks:									THE CONTROL TO THE CO
Depth (inclemarks: ydrology /etland Hyd	y	cators:							THE CONTROL OF THE CO
ydrology (etland Hyd rimary Indi Surface V High Wat	y Irology Indi cators (mir Vater (A1) er Table (A2	imum of	one requir	□ w		d Leaves	(B9) (excep	ot MLRA	Secondary Indicators (minimum of two requir Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 4B)
ydrology Vetland Hyd Surface V	y Irology Indi cators (mir Vater (A1) er Table (A2 n (A3)	imum of	one requir	☐ W 1,	ater-Staine , 2, 4A, and alt Crust (B	d Leaves 4B) 11)		ot MLRA	Secondary Indicators (minimum of two requir Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
ydrology (etland Hyd Ymary Indi Surface V High Wat	y irology Indi cators (mir Vater (A1) er Table (A2 n (A3) arks (B1)	imum of	one requir	☐ W 1, ☐ Sa ☐ Ac	ater-Staine , 2, 4A, and alt Crust (B quatic Inve	ed Leaves (4B) (11) (tebrates	(B13)	ot MLRA	Secondary Indicators (minimum of two requii Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)
emarks: ydrology etland Hyd rimary Indo Surface V High Wat Saturatio Water Ma	y irology Indi cators (min Vater (A1) er Table (A2 n (A3) erks (B1)	imum of	one requir	W 1,	ater-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su	ed Leaves (4B) (11) (rtebrates (lfide Odo	(B13) r (C1)		Secondary Indicators (minimum of two requi Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
ydrology (etland Hyd frimary Indi Surface V High Wat Saturatio Water Ma Sediment	y irology Indi cators (mir vater (A1) er Table (A2 n (A3) nrks (B1) Deposits (B osits (B3)	i <u>imum of</u>) 2)	one reauir	☐ W 1, ☐ Sa ☐ Ad ☐ Hy	ater-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz	ed Leaves (4B) (11) (rtebrates (lfide Odo (zospheres	(B13) r (C1) s on Living F		Secondary Indicators (minimum of two requi 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)
emarks: ydrology etland Hyd rimary Indi Surface V High Wate Sadiment Drift depo Algal Mat	virology Indi cators (mir Vater (A1) er Table (A2 n (A3) Deposits (B) Deposits (B3) or Crust (B4	i <u>imum of</u>) 2)	one reauir	 W 1, Sa Ac H₁ O Pr 	ater-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhi resence of I	d Leaves (4B) (11) (tebrates (lfide Odo (zospheres (Reduced)	(B13) r (C1) s on Living F Iron (C4)	loots (C3)	Secondary Indicators (minimum of two requi Water-Stained Leaves (B9) (MLRA 1, 2, 44, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
ydrology (etland Hyd rimary Indi Surface V High Wat Saduratio Suturatio Drift dept Algal Mat Iron Dept	virology Indi cators (mir Vater (A1) per Table (A2 n (A3) Deposits (B1) Deposits (B3) or Crust (B4 posits (B5)	i <u>imum of</u>) 2)	one reauir	 ₩ 1, Sa Ac H₁ O: Pr Re 	ater-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron	ed Leaves (4B) (11) (rtebrates (lfide Odo (cospheres (Reduced)	(B13) r (C1) s on Living R Iron (C4) n in Tilled Sc	Roots (C3)	Secondary Indicators (minimum of two requi 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)
emarks: ydrology etland Hyd rimary Indi Surface V High Water Ma Sediment Drift depu Algal Mat Iron Depy Surface S	y irology Indi cators (mir Vater (A1) er Table (A2 n (A3) 1: Deposits (B soits (B3) or Crust (B4 soits (B5) ioil Cracks (B	imum of 2) 6)		W 1, Sa Ac Hy Or Re	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of lecent Iron launted or Stunted or Stunded or Stund	d Leaves (4B) (11) rtebrates (lfide Odo cospheres Reduced I Reduction tressed P	(B13) r (C1) s on Living F Iron (C4) n in Tilled Sc lants (D1) (I	Roots (C3)	Secondary Indicators (minimum of two requii 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)
emarks: ydrology etland Hyd rimary Indi Surface V High Wat Sediment Drift depo Algal Mat I ron Depy Surface S I nundatio	virology Indi cators (mir Vater (A1) per Table (A2 n (A3) Deposits (B1) Deposits (B3) or Crust (B4 posits (B5)	imum of) 2) 6) Aerial Ima	gery (<i>B7</i>)	W 1, Sa Ac Hy Or Re	ater-Staine , 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron	d Leaves (4B) (11) rtebrates (lfide Odo cospheres Reduced I Reduction tressed P	(B13) r (C1) s on Living F Iron (C4) n in Tilled Sc lants (D1) (I	Roots (C3)	Secondary Indicators (minimum of two requi Water-Stained Leaves (B9) (MLRA 1, 2, 44, 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)
ydrology etland Hyd fimary Indi Surface V High Wat Sediment Drift depo Algal Mat Iron Dep Surface S Inundatio Sparsely	y Irology Indi cators (mir Vater (A1) er Table (A2 in (A3) in	imum of) 2) 6) Aerial Ima	gery (<i>B7</i>)	W 1, Sa Ac Hy Or Re	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of lecent Iron launted or Stunted or Stunded or Stund	d Leaves (4B) (11) rtebrates (lfide Odo cospheres Reduced I Reduction tressed P	(B13) r (C1) s on Living F Iron (C4) n in Tilled Sc lants (D1) (I	Roots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology detland Hyd rimary Indi Surface V High Wat Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely	virology Indicators (mirvater (A1) vater (A1) er Table (A2 n (A3) Deposits (B osits (B3) or Crust (B4 osits (B5) oil Cracks (B on Visible on Vegetated Ca ations:	imum of) 2) 6) Aerial Ima	gery (<i>B7</i>)	W 1, Sa Ac Hy Oc Pr Re St Oc	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of lecent Iron launted or Stunted or Stunded or Stund	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reducted Reduction tressed Pi in in Rem	(B13) r (C1) s on Living F Iron (C4) n in Tilled Sc lants (D1) (I	Roots (C3)	Secondary Indicators (minimum of two requii 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)
ydrology /etland Hyd /etland H	virology Indicators (mirvater (A1) vater (A1) er Table (A2 n (A3) cor Crust (B4) soits (B5) cor Crust (B4) soits (B5) cor Visible on Vegetated Ca ations: Present?	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	W 1,	later-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of lecent Iron bunted or S ther (Expla	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced Reductior tressed P in in Rem	(B13) r (C1) s on Living F Iron (C4) n in Tilled Sc lants (D1) (I	Roots (C3)	Secondary Indicators (minimum of two requi Water-Stained Leaves (89) (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)
ydrology fetland Hyd frimary Indi Surface V High Wat Sediment Drift depo Algal Mat I non Dep Surface S I nundatio Sparsely ield Observ urface Water Table P	y irology Indi cators (min Vater (A1) er Table (A2 n (A3) irks (B1) ir Deposits (B osits (B3) ioi Cracks (B on Visible on Vegetated Co ations: Present? resent?	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	W 1,	later-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of lecent Iron later (Expla	d Leaves (4B) (11) (11) (12) (13) (14) (15) (15) (16) (16) (16) (17) (17) (17) (17) (17) (17) (17) (17	(B13) r (C1) s on Living R fron (C4) n in Tilled Sc lants (D1) (I	loots (C3) sils (C6) LRR A)	Secondary Indicators (minimum of two requii 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)
ydrology /etland Hyd Surface V High Wate Sediment Drift deper Algal Mat Iron Dep Surface S Inundate Surface S Ledd Observ urface Table P Raturation Pre Includes capital	y Irology Indi cators (mir Vater (A1) er Table (A2 n (A3) arks (B1) Deposits (B3) or Crust (B4 osits (B5) ioil Cracks (B over the control of the control attorns: Present? sent? lary fringe)) 22) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (87) face (88) No (No (No (W 1,	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of leacent Iron bunted or S ther (Expla Depth (inch Depth (d Leaves (4B) (11) (11) (12) (13) (14) (15) (15) (16) (16) (17) (17) (17) (17) (17) (17) (17) (17	(B13) r (C1) on Living R Iron (C4) Iron (Titled Sc lants (D1) (I arks)	coots (C3) iils (C6) LRR A) Wetli	Secondary Indicators (minimum of two requi 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)
ydrology fetland Hyd Surface V High Wat Sediment Drift depe Algal Mat I non Dep Surface S I nundatio Surface S Ledd Observ. Ledd Observ	y Irology Indi cators (mir Vater (A1) er Table (A2 n (A3) arks (B1) Deposits (B3) or Crust (B4 osits (B5) ioil Cracks (B over the control of the control attorns: Present? sent? lary fringe)) 22) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (87) face (88) No (No (No (W 1,	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of leacent Iron bunted or S ther (Expla Depth (inch Depth (d Leaves (4B) (11) (11) (12) (13) (14) (15) (15) (16) (16) (16) (17) (17) (17) (17) (17) (17) (17) (17	(B13) r (C1) on Living R Iron (C4) Iron (Titled Sc lants (D1) (I arks)	coots (C3) iils (C6) LRR A) Wetli	Secondary Indicators (minimum of two requi Water-Stained Leaves (89) (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)





Project/Site: 4th & Miller				City/	County	Oregon Cit	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC							State: OR Sampling Point: SP_11
Investigator(s): Joe Bettis				Se	ection, T	ownship, R	Range: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope			Loc	al relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR): MLRA 2	,		Lat.: 45				Long.: -122.6214057 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	a ale a citavan	aansulay na			2 1000		NWI classification:
e climatic/hydrologic conditions or					Ye	s • No	en.
Are Vegetation, Soil	, or Hydro		significantly				
		_					
Are Vegetation, Soil	, or Hydro		naturally pro				eded, explain any answers in Remarks.)
Summary of Findings - A			owing sa	mp	ling p	oint loc	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿			Is the	e Sampled	Area
Hydric Soil Present?	Yes O	No 💿			withi	n a Wetlan	d? Yes ○ No ⑥
Wetland Hydrology Present?	Yes 🔾	No 💿					
Remarks:							
VEGETATION - Use scien	ntific nam	es of plan	nts.	Do	minant		
			Absolute		ecies? I.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5 m)		% Cover		ver	Status	Number of Dominant Species
1, Salix lucida			25	✓,	100.0%	FACW	That are OBL, FACW, or FAC:1(A)
2,					0.0%		Total Number of Dominant
3,			_	Ξ.	0.0%		Species Across All Strata:3(B)
4			0	Щ	0.0%		Samuel Charles Sanda
a to the transition (Dietoine		Λ.	25	= T	otal Cov	er	Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
Sapling/Shrub Stratum (Plot size	: <u>3 m</u>		00		02.00	FACIL	1 1
1 Rubus armeniacus			90		92.8%	FACU	Prevalence Index worksheet:
2. Corylus cornuta 3.				H	7.2%	FACU	
4.				\Box	0.0%		,
5.					0.0%		
			97	= T	otal Cov	er	FAC species 0 x 3 = 0 FACU species 97 x 4 = 388
Herb Stratum (Plot size: 1 m)				ouii 00 i		
1 Convolvulus arvensis			5	✔.	100.0%	UPL	ore species X 3 -
2,			0		0.0%		
3				Н	0.0%	-	Prevalence Index = B/A = 3.646
4			0_	H	0.0%		Hydrophytic Vegetation Indicators:
5				H	0.0%		☐ 1 - Rapid Test for Hydrologic Vegetation
6				\Box	0.0%		2 - Dominance Test is > 50%
8			0		0.0%		3 - Prevalence Index is ≤3.0 1
9			0		0.0%		4 - Morphological Adaptations 1(Provide supporting
10			0		0.0%		data in Remarks or on a separate sheet)
11.					0.0%		5 - Wetland Non-Vascular Plants 1
			5	= T	otal Cov	er	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,			0_	님	0.0%		100.0
2				Щ	0.0%		Hydrophytic Vegetation
			0	= T	otal Cov	er	Present? Yes No No
% Bare Ground in Herb Stratum	1: 95						
Remarks:							
*Indicator suffix = National sta	itus or profes	sional decision	n assigned beca	use	Regional	status not o	defined by PWS.

US Army Corps of Engineers





		oribe to		leeded to d	locument	circ iliai	cator or co	onfirm the	absence of indicators.)
Depth		Matrix			Red	ox Featu			
(inches)	Color (moist)	0/0	Color (r	noist)	0/0	Type 1	Loc2	Texture Remarks
0-10	10YR	3/1	100%						Silt Loam
10-17	10YR	3/1	99%	10YR	4/4	1%	С	M	Silty Clay Loam
17-20	10YR	3/1	7%	10YR	4/4	3%	C	M	Silty Clay Loam
		_	=		_		_		
			n. RM=Redu					ains ² Loc	cation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils ³ :
Histosol (A Histic Epip Black Histi Hydrogen	A1) pedon (A2) ic (A3) Sulfide (A4)			Sand	dy Redox (oped Matrix	(S5) x (S6) Mineral (F Matrix (F	1) (except	in MLRA 1)	2 cm Muck (A10) Red Parent Material (TF2)
Thick Dark Sandy Mu Sandy Gle	Below Dark S k Surface (A: ck Mineral (S yed Matrix (12) 51) S4)		Red	ox Dark Su leted Dark ox depress	rface (F6 Surface (Same a		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
strictive La Type:	ayer (if pre	sent):							
Depth (inch	hee).								Hydric Soil Present? Yes No No
emarks:									
	,								
/drology		icators:							
rdrology etland Hyd imary Indio	rology Indi cators (min	nimum of	one require	□ w.		ed Leaves	(89) (exœ	pt MLRA	Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
ydrology etland Hyd rimary Indio	rology Indi cators (mir Vater (A1) er Table (A2	nimum of	one require	□ w.	ater-Staine	ed Leaves I 4B)	(B9) (exce _l	pt MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
/drology etland Hyd imary Indi Surface W High Wat Saturation	rology Indi cators (min Vater (A1) er Table (A2 n (A3)	nimum of	one require	□ W. 1, □ Sa	ater-Staine 2, 4A, and	ed Leaves I 4B) 11)		pt MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
ydrology etland Hyd fimary Indie Surface W High Wate Saturation Water Ma	rology Indi cators (mir Vater (A1) er Table (A2 n (A3) urks (B1) Deposits (B	nimum of	one require	□ W. 1, □ Sa □ Ac	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su	ed Leaves I 4B) 11) rtebrates Ifide Odo	(B13) r (C1)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
ydrology etland Hyd imary India Surface Wi High Wat Saturatio Water Ma Sediment Drift depo	rology Indi cators (min Vater (A1) er Table (A2 in (A3) inks (B1) Deposits (B osits (B3)	<u>nimum of</u>) 2)	one require	W. 1,	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz	ed Leaves I 4B) 11) rtebrates ilfide Odo zospheres	(B13) r (C1) on Living I		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)
ydrology etland Hyd fimary Indie Surface W High Wata Saturatio Water Ma Sediment Drift depo	rology Indi cators (min Vater (A1) er Table (A2 n (A3) inks (B1) Deposits (B osits (B3) or Crust (B4	<u>nimum of</u>) 2)	one require	W. 1, Sa Ac Hy Op Pr	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I	ed Leaves I 4B) 11) rtebrates alfide Odo zospheres Reduced I	(B13) r (C1) on Living I Iron (C4)	Roots (C3)	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)
ydrology etland Hyd imary India Surface W High Watu Saturation Water Ma Sediment Drift denet Algal Mat	rology Indi cators (mir Vater (A1) er Table (A2 n (A3) irks (B1) Deposits (B osits (B3) or Crust (B4 osits (B5)	imum of) 2) 4)	one require	W 1, Sa Ac Hy O Pr Re	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron	ed Leaves (4B) (11) (rtebrates (alfide Odo (zospheres (Reduced)	(B13) r (C1) on Living I (ron (C4) i in Tilled So	Roots (C3)	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)
rdrology etland Hyd imary Indi Surface W High Wate Saturation Water Ma Sediment Drift depo Algal Mat I Iron Depc Surface S	rology Indi cators (mir Vater (A1) er Table (A2 n (A3) arks (B1) Deposits (B osits (B3) or Crust (B4 osits (B5)	2) 1) 2) 4)		W.1, Sa Ac Hy Or Pr Re	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron I unted or S	ed Leaves (4B) (11) rtebrates alfide Odo zospheres Reduced I Reduction tressed P	(B13) r (C1) r on Living I fron (C4) r in Tilled So	Roots (C3)	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)
rdrology stland Hyd imary India Surface W High Wate Saturation Water Ma Drift depo Algal Mat I Iron Depc Surface S	rology Indi cators (mir Vater (A1) er Table (A2 n (A3) erks (B1) Deposits (B osits (B3) or Crust (B4 osits (B5) oil Cracks (B	nimum of) 2) 6) Aerial Ima	gery (8 <i>7</i>)	W.1, Sa Ac Hy Or Pr Re	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron	ed Leaves (4B) (11) rtebrates alfide Odo zospheres Reduced I Reduction tressed P	(B13) r (C1) r on Living I fron (C4) r in Tilled So	Roots (C3)	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)
ydrology etland Hyd fimary Indi Surface W High Wate Saturation Water Ma Sediment Drift depo Algal Mat I non Depc Surface S I nundatio	rology Indi cators (mir Vater (A1) er Table (A2 n (A3) arks (B1) Deposits (B osits (B3) or Crust (B4 osits (B5)	nimum of) 2) 6) Aerial Ima	gery (8 <i>7</i>)	W.1, Sa Ac Hy Or Pr Re	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron I unted or S	ed Leaves (4B) (11) rtebrates alfide Odo zospheres Reduced I Reduction tressed P	(B13) r (C1) r on Living I fron (C4) r in Tilled So	Roots (C3)	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)
ydrology etland Hyd rimary Indie Surface W High Wab Saturation Water Ma Sediment Drift depc Algal Mat I ron Depc Surface S I nundatio Sparsely \(\)	rology Indicators (mirvater (A1) er Table (A2 in (A3) in (A3) in (A5)	nimum of) 2) 6) Aerial Ima	gery (B7) face (B8)	W 1,	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of lecent Iron is unted or S ther (Expla	ed Leaves 1 4B) 111) rtebrates elfide Odo zospheres Reducted Reduction tressed P in in Rem	(B13) r (C1) r on Living I fron (C4) r in Tilled So	Roots (C3)	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)
ydrology letland Hyd rimary Indie Surface W High Wab Saturation Water Ma Sediment Drift depc Algal Mat I ron Depc Surface S I Inundatio Sparsely \u00e4	rology Indicators (mirvater (A1) er Table (A2 in (A3)	nimum of) 2) 6) Aerial Ima	gery (B7) fface (B8)	W W 1,	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I ecent Iron nunted or S ther (Expla	ed Leaves 1 4B) 11) rtebrates Ilfide Odo zospheres Reduced Reductior tressed P in in Rem	(B13) r (C1) r on Living I fron (C4) r in Tilled So	Roots (C3)	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)
ydrology (etland Hyd mary Indi Surface W High Watu Saturation Water Ma Sediment Drift depc Algal Mat Iron Depc Surface S Inundatio Sparsely \u00e4	rology Indicators (mirvater (A1) er Table (A2 n (A3) Deposits (B3) or Crust (B4) soits (B5) oil Cracks (B oil Visible on Vegetated Co ations: Present?	2) 2) 4) Aerial Ima poncave Sur Yes Yes	gery (B7) face (B8) No •	W W 1,	ater-Staine, 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhizesence of lecent Iron is unted or S ther (Expla	ed Leaves 1 4B) 11) rtebrates Ilfide Odo zospheres Reduced Reductior tressed P in in Rem	(B13) r (C1) r on Living I fron (C4) r in Tilled So	Roots (C3) oils (C6) LRR A)	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)
High Wab Saturation Water Ma Sediment Drift depc Algal Mat Iron Depc Surface S Inundatio Sparsely \(\) idle Observation Water Table Pri aturation Pres Cater Table aturation Pres Cater Table aturation Pres Cater Table Pri cate	rology Indi cators (mir Vater (A1) er Table (A2) er Table (A3) rks (B1) Deposits (B sor Crust (B4) soir Crust (B4) soir Crust (B5) soil Cracks (B son Visible on Vegetated Cc ations: Present? resent? lary fringe)	2) 4) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) fface (B8) No (No (W W I, I Sa Sa Sa Sa Sa Sa Sa	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I acent Iron united or S ther (Expla	d Leaves (4B) (11) (11) (11) (12) (13) (14) (15) (15) (16) (16) (17) (17) (17) (17) (17) (17) (17) (17	(B13) r (C1) s on Living I fron (C4) s in Tilled Sc ants (D1) (arks)	Roots (C3) poils (C6) LRR A) Wetl	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)
ydrology /etland Hyd Surface W High Wate Saturation Water Ma Sediment Drift depc Surface Water Table Pristuration Pre	rology Indi cators (mir Vater (A1) er Table (A2) er Table (A3) rks (B1) Deposits (B sor Crust (B4) soir Crust (B4) soir Crust (B5) soil Cracks (B son Visible on Vegetated Cc ations: Present? resent? lary fringe)	2) 4) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) fface (B8) No (No (W W I, I Sa Sa Sa Sa Sa Sa Sa	ater-Staine 2, 4A, and alt Crust (B quatic Inve ydrogen Su xidized Rhiz resence of I acent Iron united or S ther (Expla	d Leaves (4B) (11) (11) (11) (12) (13) (14) (15) (15) (16) (16) (17) (17) (17) (17) (17) (17) (17) (17	(B13) r (C1) s on Living I fron (C4) s in Tilled Sc ants (D1) (arks)	Roots (C3) poils (C6) LRR A) Wetl	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)





Project/Site: 4th & Miller			ity/County:	Oregon Cit	Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_12
nvestigator(s): Joe Bettis			Section, To	ownship, R	Range: \$ 01 T_3S R_1E
Landform (hillslope, terrace, etc.):	Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.34522442		Long.: -122.6214076 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outcrop complex mo				NWI classification:
e climatic/hydrologic conditions on				s 🕑 No (et la
Are Vegetation, Soil		significantly			Normal Circumstances" present? Yes No
		10			production and the second
Are Vegetation, Soil		naturally pro			eeded, explain any answers in Remarks.)
Summary of Findings - At		owing sa	mpling p	oint lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○		Is the	Sampled	Area
Hydric Soil Present?	Yes No			n a Wetlan	V (a) N- (
Wetland Hydrology Present?	Yes • No O		1	udil	
Remarks:					
VEGETATION - Use scien	ntific names of plan	ts.	Dominant Species?		
56/90g 600a in			Species? Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5 m)	% Cover	Cover	Status	Number of Dominant Species
1, Salix lucida		25	100.0%	FACW	That are OBL, FACW, or FAC:
2,			0.0%		Total Number of Dominant
3,			0.0%		Species Across All Strata: 3 (B)
4					Percent of dominant Species
Sapling/Shrub Stratum (Plot size:	3 m)	25	= Total Cov	er	That Are OBL, FACW, or FAC: 66.7% (A/B)
1 Rubus armeniacus		70	1 00.0%	FACU	Prevalence Index worksheet:
2		0	0.0%		Total % Cover of: Multiply by:
•		0	0.0%		OBL species _ 5 x 1 = _ 5
4.		0	0.0%		FACW species 50 x 2 = 100
5		0	0.0%		FAC species0 x 3 =0
101.6		70	= Total Cov	er	FACU species
73.11)		J	FACTO	UPL species3 x 5 =15
1 Equisetum telmateia			75.8%	FACW	Column Totals: 128 (A) 400 (B)
2_Oenanthe sarmentosa 3_Convolvulus arvensis			9.1%	UPL	Prevalence Index = B/A = 3.125
4		0	0.0%	314	
5		0	0.0%		Hydrophytic Vegetation Indicators:
6		0	0.0%	100	☐ 1 - Rapid Test for Hydrologic Vegetation ✓ 2 - Dominance Test is > 50%
7		0_	0.0%		2 - Dominance Test is > 50% 3 - Prevalence Index is ≤3.0 ¹
8.———			0.0%		
9,			0.0%		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10.			0.0%		5 - Wetland Non-Vascular Plants 1
11.———		33	= Total Cov	 er	Problematic Hydrophytic Vegetation 1 (Explain)
Woody Vine Stratum (Plot size:)		. Juli WV		¹ Indicators of hydric soil and wetland hydrology must
1.		0	0.0%		be present, unless disturbed or problematic.
2.		0	0.0%		Hydrophytic
		0	= Total Cov	er	Vegetation Present? Yes No
% Bare Ground in Herb Stratum	11 70				
Remarks:					I .
remarks:					

US Army Corps of Engineers





oil	11111									
rofile Descr	iption: (Des		the depth	needed to				nfirm the	absence of indicator	·s.)
Depth	Calant	Matrix	0/	Calas (ox Featu		1 2		Remarks
(inches) 0-2	Color (i	3/1	100%	Color (moist)	%	Type 1	Loc2	Texture Silt Loam	Kemarks
2-8	10YR	4/4	95%	10YR	4/4	3%		М	Silty Clay Loam	Additional redox feature
8-20	10YR	4/4	95%	10YR	4/4	5%			Silty Clay Loam	in layer:10YR 4/6 2% c/p
6-20	1011		9370	1011		370			Sity Clay Lballi	
Type: C=Con	centration. D	=Depletion	n. RM=Redu	uced Matrix,	CS=Covere	d or Coat	ed Sand Gra	ins ²Loc	ation: PL=Pore Lining.	M=Matrix
tydric Soil 1	indicators:	(Applicat	le to all Li	RRs, unless	otherwise	e noted.)		Indicators for Pr	oblematic Hydric Soils ³ :
Black Hist Hydrogen	pedon (A2)		11)	Stri	dy Redox (S pped Matrix my Mucky I my Gleyed S bleted Matri	(S6) Mineral (F Matrix (F	F1) (except in 2)	n MLRA 1)	2 cm Muck (A Red Parent M Other (Explain	aterial (TF2)
Thick Dar Sandy Mu	k Surface (A) ick Mineral (S	12) 51))	Red Dep	lox Dark Su oleted Dark lox depressi	rface (F6 Surface (³ Indicators of hydro wetland hydrolog unless disturbed	phytic vegetation and gy must be present, or problematic.
estrictive L	eyed Matrix (s aver (if pre					(,				
Туре:										
									Hydric Soil Presen	t? Yes • No O
Depth (inc Remarks:	hes):								Tryunc 3011 Fresen	res © NO C
	hes):								Tyuno 301 Fresen	res © NO C
Remarks:	y								Tyuno 301 Fresen	ir res o no o
Remarks:	y Irology Indi									
ydrologi Vetland Hyd Surface \	y Irology Indi icators (min Water (A1)	imum of	one requir	□ w		d Leaves	(89) (excep	t MLRA	Secondary I	ndicators (minimum of two requi ained Leaves (B9) (MLRA 1, 2,
ydrolog Vetland Hyd Primary Ind Surface V	y Irology Indi icators (min Vater (A1) zer Table (A2)	imum of	one requir	□ w	ater-Staine , 2, 4A, and	d Leaves 4B)	(89) (excep	t MLRA	Secondary I	ndicators (minimum of two requitations (B9) (MLRA 1, 2, 48)
Yetland Hyd Primary Indi Surface \ ✓ High Wat	y Irology Indi icators (min Vater (A1) per Table (A2) n (A3)	imum of	one requir	□ w 1, □ sa	ater-Staine	d Leaves 4B) 11)		t MLRA	Secondary I Water-St 4A, and Drainage	ndicators (minimum of two requi ained Leaves (B9) (MLRA 1, 2, 4B) Patterns (B10)
Vetland Hyd Surface V High Wat Saturatio Water Ma	y Irology Indi icators (min Vater (A1) per Table (A2) n (A3)	imum of	one requir	□ w 1, □ sa □ A	ater-Staine , 2, 4A, and alt Crust (B:	d Leaves 4B) 11) tebrates	(B13)	t MLRA	Secondary I Water-St 4A, and Drainage Dry Seas	ndicators (minimum of two requitations (B9) (MLRA 1, 2, 48)
lydrolog Wetland Hyd Primary Ind Surface \ ✔ High Wat ✔ Saturatio Water Ma	y Irology Indi icators (min Nater (A1) er Table (A2 n (A3) erks (B1)	imum of	one requir	☐ W 1, ☐ Ss ☐ Ar	ater-Staine , 2, 4A, and alt Crust (B: quatic Inver ydrogen Su	d Leaves 4B) 11) rtebrates Ifide Odo	(B13)		Secondary I Water-St 4A, and Drainage Dry Seas	ndicators (minimum of two requi tained Leaves (B9) (MLRA 1, 2, 4B) Patterns (B10) Ion Water Table (C2)
ydrolog Vetland Hyd Primary Indi Surface \ ✓ High Wat ✓ Saturatio ✓ Water Mi	y Irology Indi icators (min Water (A1) Der Table (A2) In (A3) arks (B1) t Deposits (B.	imum of	one requir	W 1,	ater-Staine , 2, 4A, and alt Crust (B: quatic Inver ydrogen Su	d Leaves 4B) 11) rtebrates Ifide Odo cospheres	(B13) r (C1) s on Living R		Secondary I Water-St 4A, and Drainage Dry Seas Saturatic	ndicators (minimum of two requi tained Leaves (B9) (MLRA 1, 2, 48) Patterns (B10) On Water Table (C2) On Visible on Aerial Imagery (C9)
ydrolog: Vetland Hyc Primary Indi Surface \ ✓ High Water Mc Sediment Drift dep Algal Mat Iron Dep	y Irology Indi icators (min Water (A1) Water (A1) Fr Table (A2, In (A3) E Deposits (B1) E Deposits (B3) For Crust (B4 osits (B5)	imum of_) 2) ;)	one requir	W 1, Si A	later-Staine , 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhiz resence of F ecent Iron I	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I	(B13) r (C1) s on Living R Iron (C4) n in Tilled Soi	oots (C3)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatio Geomory Shallow	ndicators (minimum of two requi tained Leaves (B9) (MLRA 1, 2, 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (C9) shic Position (D2) Aquitard (D3) tral Test (D5)
iydrolog: Vetland Hyc Primary Indi Surface \ ✓ High Wat ✓ Saturatio Urift dep Algal Mat Iron Dep	y Irology Indi icators (min Water (A1) Water (A2) n (A3) t Deposits (B1) t Deposits (B3) or Crust (B4 osits (B5) ioil Cracks (B	imum of) 2) ;) 6)		W 1, Si Ai H ✓ 0 Pi Ri Si Si Si Si Si Si S	fater-Staine, 2, 4A, and alt Crust (B: quatic Inversed Suite (B: xidized Rhizesente of Fecent Iron Funted or Standard (C)	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I Reduction tressed P	(B13) r (C1) s on Living R Iron (C4) n in Tilled Soi	oots (C3)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatic Geomory Shallow FAC-neu Raised A	ndicators (minimum of two requitations (minimum of two requitations (B10) (MLRA 1, 2, 48) Patterns (B10) (B
lydrolog: Vetland Hyc Primary Indi Surface \ ✓ High Wat ✓ Saturatio Unift dep Algal Mat Iron Dep Surface S Inundatio	y Irology Indi cators (min Water (A1) Water (A3) Airks (B1) Sosits (B3) Sosits (B3) Sosits (B5) Sosits (B5) Sosits (B5)	imum of) 2) 6) Aerial Ima	gery (B7)	W 1, Si Ai H ✓ 0 Pi Ri Si Si Si Si Si Si S	later-Staine , 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhiz resence of F ecent Iron I	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I Reduction tressed P	(B13) r (C1) s on Living R Iron (C4) n in Tilled Soi	oots (C3)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatic Geomory Shallow FAC-neu Raised A	ndicators (minimum of two requi tained Leaves (B9) (MLRA 1, 2, 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (C9) shic Position (D2) Aquitard (D3) tral Test (D5)
lydrolog: Vetland Hyc Primary Indi Surface \ ✓ High Wat ✓ Saturatio Unift dep Algal Mat Iron Dep Surface S Inundatio	y Irology Indi icators (min Water (A1) Water (A2) n (A3) t Deposits (B1) t Deposits (B3) or Crust (B4 osits (B5) ioil Cracks (B	imum of) 2) 6) Aerial Ima	gery (B7)	W 1, Si Ai H ✓ 0 Pi Ri Si Si Si Si Si Si S	fater-Staine, 2, 4A, and alt Crust (B: quatic Inversed Suite (B: xidized Rhizesente of Fecent Iron Funted or Standard (C)	d Leaves 4B) 11) rtebrates lfide Odo cospheres Reduced I Reduction tressed P	(B13) r (C1) s on Living R Iron (C4) n in Tilled Soi	oots (C3)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatic Geomory Shallow FAC-neu Raised A	ndicators (minimum of two requitations (minimum of two requitations (B10) (MLRA 1, 2, 48) Patterns (B10) (B
ydrolog Vetland Hyc Primary Indi Surface \(\foldar{\text{\subseteq}} \)	y Irology Indi cators (min Water (A1) Water (A1) Arr Table (A2 n (A3) Deposits (B1) Deposits (B3) Or Crust (B4 osits (B5) Soil Cracks (B on Visible on Vegetated Cc ations:	imum of) 2) 6) Aerial Ima	gery (B <i>T</i>) face (B8)	W 1, Si	fater-Staine, 2, 4A, and alt Crust (B: quatic Inverse ydrogen Su xidized Rhiz resence of Fecent Iron fatured or St ther (Explain	d Leaves 4B) 111) rtebrates Ifide Odo cospheres Reduced I Reduction tressed P in in Rem	(B13) r (C1) s on Living R Iron (C4) n in Tilled Soi	oots (C3)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatic Geomory Shallow FAC-neu Raised A	ndicators (minimum of two requitations (minimum of two requitations (B10) (MLRA 1, 2, 48) Patterns (B10) (B
ydrolog Vetland Hyc Yetland Hyc Surface Ingle Ingl	y Irology Indi cators (min Vater (A1) Ver Table (A2 n (A3) or Table (A2 n (A3) or Or Crust (B4 osits (B5) or Crust (B4 osits (B5) or Visible on Vegetated Cc ations: Present?	imum of) 2) 6) Aerial Imanoncave Sur	gery (87) face (88)	W 1, Si 4 H V 0 P P Si 5 Si 0 O	fater-Staine, 2, 4A, and alt Crust (B; quatic Inverser ydrogen Su xidized Rhiz resence of Fecent Iron It tunted or Sit ther (Explain Depth (inch	d Leaves 4B) 11) tebrates lifide Odo cospheres Reduced Reduction tressed P in in Rem	(B13) r (C1) s on Living R fron (C4) n in Tilled Solants (D1) (L	oots (C3)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatic Geomory Shallow FAC-neu Raised A	ndicators (minimum of two requitations (minimum of two requitations (B10) (MLRA 1, 2, 48) Patterns (B10) (B
ydrolog Vetland Hyc Primary Indi Surface \(\foldar{1} \) Surface \(\foldar{1} \) Water Mc Sediment Drift dep Algal Mat Iron Dep Surface \(\foldar{1} \) Inundatic Sparsely	y Irology Indi icators (min Water (A1) For Table (A2, In (A3) For Deposits (B1) For Crust (B4 soits (B5) For Crust (B4 soits (B4 soits (B5) For Crust (B4 soits (2) 6) Aerial Imanoncave Sur	gery (B7) face (B8) No (W 1, Si 4 A H V 0 P P Si 5 Si 0 O	fater-Staine, 2, 4A, and alt Crust (B: quatic Inverse ydrogen Su xidized Rhiz resence of Fecent Iron fatured or St ther (Explain	d Leaves 4B) 11) tebrates lifide Odo cospheres Reduced Reduction tressed P in in Rem	(B13) r (C1) s on Living R Iron (C4) n in Tilled Soi	oots (C3) ls (C6) RR A)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatic Geomory Shallow FAC-neu Raised A Frost He	ndicators (minimum of two requi tained Leaves (B9) (MLRA 1, 2, 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (C9) ohic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR A) ave Hummocks (D7)
ydrolog Vetland Hyc Yetland Hyc Surface Ingle Ingl	y Irology Indi cators (min Water (A1) Water (A3) Irology Indi Per Table (A2) In (A3) Irology Indi Irology Ind	imum of) 2) 6) Aerial Imanoncave Sur	gery (B7) face (B8) No (W 1, Si 4 A H V 0 P P Si 5 Si 0 O	fater-Staine, 2, 4A, and alt Crust (B; quatic Inverser ydrogen Su xidized Rhiz resence of Fecent Iron It tunted or Sit ther (Explain Depth (inch	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reduced I Reduction tressed P in in Rem	(B13) r (C1) s on Living R fron (C4) n in Tilled Solants (D1) (L	oots (C3) ls (C6) RR A)	Secondary I Water-St 4A, and Drainage Dry Seas Saturatic Geomory Shallow FAC-neu Raised A	ndicators (minimum of two requi tained Leaves (B9) (MLRA 1, 2, 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (C9) ohic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR A) ave Hummocks (D7)
ydrolog: Vetland Hyc Primary Indi Surface \ ✓ High Wat ✓ Saturatio Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely Field Observ Forface Water Vater Table P	y Irology Indi icators (min Vater (A1) ver Table (A2 n (A3) arks (B1) t Deposits (B) soits (B3) to or Crust (B4 soits (B5) soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (87) face (88) No (10) No (10)	W 1, Si 4 A A A A A A A A A A A A A A A A A A	fater-Staine, 2, 4A, and alt Crust (B: quatic Inver ydrogen Su xidized Rhiz resence of Feecent Iron I tunted or St ther (Explain Depth (inch de	d Leaves 4B) 11) rtebrates Ifide Odo cospheres Reductor tressed P in in Rem nes): nes):	(B13) r (C1) s on Living R Iron (C4) in Tilled Soi lants (D1) (L arks)	oots (C3) Is (C6) RR A) Wetla	Secondary I Water-St 4A, and Drainage Dry Seas Saturatio Geomory Shallow FAC-neu Raised A Frost He	ndicators (minimum of two requi tained Leaves (B9) (MLRA 1, 2, 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (C9) ohic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR A) ave Hummocks (D7)





Project/Site: 4th & Miller			City/Co	unty:	Oregon Cit	Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC						State: OR Sampling Point: SP_13
nvestigator(s): Joe Bettis			Secti	on, To	ownship, R	tange: \$ 01 T_3S R_1E
Landform (hillslope, terrace, etc.):	Toeslope		Local	relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 4!	5.34514	128		Long.: -122.6213471 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ck outcrop com					NWI classification:
e climatic/hydrologic conditions on				Ye	s 💿 No 🤇	dh.
re Vegetation, Soil	, or Hydrology					Normal Circumstances" present? Yes No
	, or Hydrology	_				To the contract of the contrac
						eded, explain any answers in Remarks.)
			mplii	ıg p	oint loc	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	271.44	O	- [:	Is the	Sampled	
Hydric Soil Present?	10-2	•	- [-,	withir	n a Wetlan	d? Yes O No 🖲
Wetland Hydrology Present?	Tes ∨ No					
Remarks:						
VECETATION Her rains	tific names	of plants	Dani			
VEGETATION - Use scien	iune names (Domi Speci	es?		
Tree Stratum (Plot size:	Ĭ	Absolute % Cover			Indicator Status	a
1,				.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2,				.0%	-	
3,		0		.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4		0		.0%		
			= Tota	I Cov	er	Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
Sapling/Shrub Stratum (Plot size:	3 m			0.001	E46::	That Are obly Therry of The.
1, Rubus armeniacus			_		FACU	Prevalence Index worksheet:
2 3.				.0%		Total % Cover of: Multiply by:
3. 4.				.0%		OBL species 0 x 1 = 0 FACW species 5 x 2 = 10
5.		0		.0%		FAC species 0 x 3 = 0
		100	= Tota		er	FACU species 100 x 4 = 400
Herb Stratum (Plot size: 1 m)					UPL species
1 Equisetum telmateia		5	10	0.0%	FACW	Column Totals: 105 (A) 410 (B)
2,				.0%		
3				.0%		Prevalence Index = B/A = 3.905
5				.0%		Hydrophytic Vegetation Indicators:
6				.0%		1 - Rapid Test for Hydrologic Vegetation
7				.0%		2 - Dominance Test is > 50%
8		0		.0%		3 - Prevalence Index is ≤3.0 ¹
9,				.0%		 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10				.0%		5 - Wetland Non-Vascular Plants 1
11.———			-	.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vino Stratum /Diot size:)	5	= Tota	· COV	er	¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:		0		.0%		be present, unless disturbed or problematic.
2.				.0%		Hydrophytic
		0	= Tota		er	Vegetation Present? Yes No No
% Bare Ground in Herb Stratum	: 05		100	. 300		riesentr
	. 32					I .
Remarks:						

US Army Corps of Engineers





rofile Descri	ption: (Des	scribe to	ille deptil i	eeded to do	cument t	ne indi	cator or co	onfirm the	absence of indicators.)
Depth		Matrix			Redox	c Featu	res		
(inches)	Color (moist)	0/0	Color (mo	oist)	0/0	Type 1	Loc2	Texture Remarks
0-4	10YR	3/1	100%						Silt Loam
4-8	10YR	3/1	99%	10YR	4/4	1%	С	M	Silty Clay Loam
8-20	10YR	3/1	95%	10YR	4/4	5%	C	M	Silty Clay Loam
				ced Matrix, CS				rains ²Loc	cation: PL=Pore Lining. M=Matrix
		(Applical	ole to all LF	Rs, unless o)		Indicators for Problematic Hydric Soils ³ :
Histosol (A					Redox (S) ed Matrix (2 cm Muck (A10)
Black Histi							1) (except	in MLRA 1)	Red Parent Material (TF2)
_	Sulfide (A4)				y Gleyed M				Other (Explain in Remarks)
_	Below Dark S		11)	Deplet	ted Matrix	(F3)			
Thick Dark	Surface (A)	12)			Dark Surf				3Indicators of hydrophytic vegetation and
Sandy Mu	k Mineral (S	51)			ted Dark S		(F7)		wetland hydrology must be present,
	yed Matrix (Redox	depressio	ns (F8)			unless disturbed or problematic.
estrictive La	yer (if pre	sent):							
Type:									Hydric Soil Present? Yes No
Depth (inch Remarks:	les):								nyaric Soil Present/ Yes © No U
Remarks:									nyaric Soil Present / Yes No
Nemarks:	,	cators:							nyaric Soil Present / Yes No
emarks: ydrology /etland Hyd	rology Indi		one requir	ed; check all	that appl	(v)			
ydrology /etland Hyd Primary India	rology Indi cators (min ater (A1)	imum of	one require	☐ Wat	er-Stained	Leaves	(B9) (exce	pt MLRA	_Secondary Indicators (minimum of two requi Water-Stained Leaves (B9) (MLRA 1, 2,
ydrology Vetland Hyd Surface W	rology Indi cators (min ater (A1) er Table (A2)	imum of	one requir	☐ Wat	er-Stained , 4A, and 4	Leaves IB)	(89) (exce	pt MLRA	_Secondary Indicators (minimum of two requi
ydrology Vetland Hyd Primary India Surface W	rology Indi cators (min /ater (A1) er Table (A2)	imum of	one requir	☐ Wat 1, 2 ☐ Salt	er-Stained , 4A, and 4 Crust (B11	Leaves HB) L)		pt MLRA	Secondary Indicators (minimum of two requi Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (810)
ydrology Vetland Hyd Primary India Surface W High Wate Saturation Water Ma	rology Indi cators (min (ater (A1) er Table (A2) n (A3) rks (B1)	imum of	one requir	Wat	er-Stained , 4A, and 4 Crust (B11 atic Inverte	Leaves HB) L) ebrates	(B13)	pt MLRA	Secondary Indicators (minimum of two requi Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)
ydrology /etland Hyd Surface W High Wab Saturation Water Ma	rology Indi cators (min later (A1) ar Table (A2, 1 (A3) rks (B1) Deposits (B.	imum of	one reauin	Wate 1, 2	er-Stained , 4A, and 4 Crust (B11 atic Inverte rogen Sulfi	Leaves (B) (L) (ebrates (ide Odo)	(B13) r (C1)		Secondary Indicators (minimum of two requii Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
ydrology /etland Hyd Surface W High Wat Sutrater Ma Sediment Drift depo	rology Indi cators (min fater (A1) ar Table (A2) (A3) rks (B1) Deposits (B.	<u>imum of</u>) 2)	one reauir	Wat 1, 2, Salt Aqu. Hyd. Oxid	er-Stained , 4A, and 4 Crust (B11 atic Inverte rogen Sulfi dized Rhizo	Leaves HB) L) ebrates ide Odo spheres	(B13) r (C1) s on Living I		Secondary Indicators (minimum of two requii 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)
ydrology /etland Hyd /etland H	rology Indi cators (min later (A1) ar Table (A2, n (A3) Trks (B1) Deposits (B: sits (B3) or Crust (B4	<u>imum of</u>) 2)	one requir	Wat 1, 2	er-Stained , 4A, and 4 Crust (B11 atic Inverter rogen Sulfi dized Rhizo sence of Re	Leaves (B) (I) (ebrates (ide Odo (spheres (educed I	(B13) r (C1) s on Living I Iron (C4)	Roots (C3)	Secondary Indicators (minimum of two requii 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)
ydrology Vetland Hyd Primary Indi Surface W High Wate Saturation Sediment Drift depc Algal Mat	rology Indi Lators (min (ater (A1) er Table (A2) (A3) Deposits (B1) Deposits (B3) or Crust (B4 sits (B5)	i <u>mum of</u>) 2)	one requir	Wat 1, 2 Salt Aqui Hyd Oxid	er-Stained , 4A, and 4 Crust (B11 atic Inverte rogen Sulfi dized Rhizo sence of Re ent Iron Re	Leaves (HB) (L) (ebrates (ide Odo (spheres (educed I	(B13) r (C1) s on Living I Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology /etland Hyd /rimary Indi Surface W High Water Ma Sediment Drift depc Algal Mat Iron Depc Surface S	rology Indi cators (min (ater (A1) ar Table (A2) (A3) prks (B1) Deposits (B3) or Crust (B4) sits (B5) bil Cracks (B	imum of) 2) () 6)		Wat 1, 2 Salt Aque Hyde Oxid Pres Recc Stur	er-Stained , 4A, and 4 Crust (B11 atic Inverter rogen Sulfi dized Rhizo sence of Re ent Iron Re nted or Stre	Leaves (B) (I) (ebrates (ide Odo (spheres (educed I (eduction (essed Pl	(B13) r (C1) s on Living l Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology etland Hyd mmary Indi Surface W High Wate Saturation Water Ma Sediment Drift depo Algal Mat Iron Depc Surface S Inundatio	rology Indi cators (min (ater (A1) or Table (A2) rks (B1) Deposits (B: sits (B3) or Crust (B4 sits (B5)	imum of) 2) 6) Aerial Ima	gery (B7)	Wat 1, 2 Salt Aque Hyde Oxid Pres Recc Stur	er-Stained , 4A, and 4 Crust (B11 atic Inverte rogen Sulfi dized Rhizo sence of Re ent Iron Re	Leaves (B) (I) (ebrates (ide Odo (spheres (educed I (eduction (essed Pl	(B13) r (C1) s on Living l Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology (etland Hyd himary Indi Surface W High Wat Sediment Drift depo Algal Mat Iron Depo Surface S Inundatio Sparsely W	rology Indi cators (min later (A1) er Table (A2, n (A3) n (A3) Deposits (B1) Deposits (B3) or Crust (B4) sits (B5) or Crust (B4) sits (B5) or Crust (B4) will cracks (Bn Visible on /egetated Co	imum of) 2) 6) Aerial Ima	gery (B7)	Wat 1, 2 Salt Aque Hyde Oxid Pres Recc Stur	er-Stained , 4A, and 4 Crust (B11 atic Inverter rogen Sulfi dized Rhizo sence of Re ent Iron Re nted or Stre	Leaves (B) (I) (ebrates (ide Odo (spheres (educed I (eduction (essed Pl	(B13) r (C1) s on Living l Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology Vetland Hyd Primary Indi Surface W High Wab Sadiment Drift depo Algal Mat Iron Depo Surface S Inundatio Sparsely V ield Observa	rology Indi cators (min fater (A1) er Table (A2, n (A3) Deposits (B; sits (B3) or Crust (B4 sits (B5) or Crust (B4 n Visible on /egetated Co	imum of) 2) 6) Aerial Ima	gery (B7)	Wat 1, 2, Salt Aqui Hyd Oxid Pres Reco Stur Other	er-Stained , 4A, and 4 Crust (B11 atic Inverter rogen Sulfi dized Rhizo sence of Re ent Iron Re thed or Stre er (Explain	Leaves HB) L) ebrates ide Odo espheres educed I eduction essed Pl in Rem	(B13) r (C1) s on Living l Iron (C4) n in Tilled So	Roots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology Vetland Hyd Primary Indi Surface W High Watb Sadiment Drift depo Algal Mat Iron Depo Surface S Inundatio Sparsely Vetland Observarurface Water	rology Indi cators (min fater (A1) er Table (A2, n (A3) Deposits (B; sits (B3) or Crust (B4 sits (B5) or Crust (B4 n Visible on /egetated Co	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	Wat 1, 2 Salt Aqu Hyd Oxid Pres Reco Stur Othe	er-Stained , 4A, and 4 Crust (B11 atic Invertor rogen Sulfi dized Rhizo sence of Re ent Iron Re nted or Stre er (Explain	Leaves (B) L) ebrates ide Odo spheres educed I eduction essed Pl in Rem	(B13) r (C1) s on Living I fron (C4) n in Tilled St lants (D1) (arks)	Roots (C3)	Secondary Indicators (minimum of two requi 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)
ydrology Vetland Hyd Primary Indi Surface W High Wate Saturation Water Ma Sediment Drift depc Algal Mat Iron Depc Surface S Inundatio Sparsely Vield Observa	rology Indi cators (min (ater (A1) ar Table (A2, 1 (A3) Deposits (B1) Deposits (B3) or Crust (B4) sits (B5) oil Cracks (B n Visible on /egetated Co ations: Present?	imum of) 2) 6) Aerial Imanocave Sun Yes Yes	gery (B7) face (B3) No (Wat 1, 2 Salt Aqu. Hyd. Oxid Pres Rece Stur Othe	er-Stained, 4A, and 4 Crust (B11 atic Invertor rogen Sulfi dized Rhizo sence of Re ent Iron Re nted or Stre er (Explain epth (inche	Leaves (B) (L) (ebrates (ide Odor (spheres (eduction (essed Pl (in Rem (ess)):	(B13) r (C1) s on Living I Iron (C4) n in Tilled Si lants (D1) (arks)	Roots (C3) oils (C6) LRR A)	Secondary Indicators (minimum of two requi 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)
ydrology Vetland Hyd Primary Indi Surface W High Watb Sadiment Drift depo Algal Mat Iron Depo Surface S Inundatio Sparsely Vetland Observarurface Water	rology Indicators (min/ater (A1) ar Table (A2) n (A3) hs (B1) Deposits (B) sits (B3) or Crust (B4) sits (B5) bil Cracks (B n Visible on /egetated Co titions: Present? esent?	imum of) 2) 6) Aerial Ima	gery (B7) face (B3) No (Wat 1, 2 Salt Aqu. Hyd. Oxid Pres Rece Stur Othe	er-Stained , 4A, and 4 Crust (B11 atic Invertor rogen Sulfi dized Rhizo sence of Re ent Iron Re nted or Stre er (Explain	Leaves (B) (L) (ebrates (ide Odor (spheres (eduction (essed Pl (in Rem (ess)):	(B13) r (C1) s on Living I fron (C4) n in Tilled St lants (D1) (arks)	Roots (C3) oils (C6) LRR A)	Secondary Indicators (minimum of two requications) 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)
ydrology Vetland Hyd Primary Indie Surface W High Wab Sediment Drift depo Algal Mat Iron Depc Inundatio Surface S Inundatio Surface S Vater Mater Vater Mater Vater Mater Vater Mater Mater Vater Table Preduction	rology Indi cators (min fater (A1) er Table (A2) for (A3) rks (B1) Deposits (B: sits (B3) or Crust (B4) sist (B5) in Visible on vegetated Co attions: Present? esent? esent?	imum of) 2) 6) Aerial Imanorave Sur Yes Yes Yes	gery (87) fface (88) No (No (No (Wat 1, 2 Salt Aqu. Hyd. Oxid Pres Rece Stur Othe	er-Stained , 4A, and 4 Crust (B11 atic Inverturogen Sulfi dized Rhizo sence of Re eente of Re tent Iron Re tent Iron Re eepth (inche eepth (inche eepth (inche	Leaves (B) (L) (E) (E) (E) (E) (E) (E) (E) (E) (E) (E	(B13) r (C1) s on Living I In in Tilled St lants (D1) (arks)	Roots (C3) poils (C6) LRR A) Wetl	Secondary Indicators (minimum of two requi 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)
ydrology Vetland Hyd Primary Indie Surface W High Wab Sediment Drift depo Algal Mat Iron Depc Inundatio Surface S Inundatio Surface S Vater Mater Vater Mater Vater Mater Vater Mater Mater Vater Table Preduction	rology Indi cators (min fater (A1) er Table (A2) for (A3) rks (B1) Deposits (B: sits (B3) or Crust (B4) sist (B5) in Visible on vegetated Co attions: Present? esent? esent?	imum of) 2) 6) Aerial Imanorave Sur Yes Yes Yes	gery (87) fface (88) No (No (No (Wat 1, 2 Salt Aqu. Aqu. Hydd Oxid Pres Rece Stur Othe	er-Stained , 4A, and 4 Crust (B11 atic Inverturogen Sulfi dized Rhizo sence of Re eente of Re tent Iron Re tent Iron Re eepth (inche eepth (inche eepth (inche	Leaves (B) (L) (E) (E) (E) (E) (E) (E) (E) (E) (E) (E	(B13) r (C1) s on Living I In in Tilled St lants (D1) (arks)	Roots (C3) poils (C6) LRR A) Wetl	Secondary Indicators (minimum of two requi 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)





Project/Site: 4th & Miller		(City/Co	unty: 0	regon City	Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC						State: OR Sampling Point: SP_14
nvestigator(s):_Joe Bettis			Section	on, Tow	nship, R	ange: \$ 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope		Local r	relief (c	oncave,	convex, none): concave Slope: 0.0 % / 0.0
subregion (LRR): MLRA 2		Lat.: 45	5.34519	157		Long.: -122.6213773 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outcrop complex m					NWI classification:
e climatic/hydrologic conditions or				Yes	● No (
Are Vegetation, Soil		significantly				Normal Circumstances" present? Yes • No
		19				production and a second
Are Vegetation, Soil		naturally pro				eded, explain any answers in Remarks.)
Summary of Findings - A	-	owing sa	mplin	ıg po	int loc	ations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No O		1	s the S	ampled A	Area
Hydric Soil Present?	Yes ● No ○		Ι,	within a	Wetland	d? Yes No
Wetland Hydrology Present?	Yes • No O		Ш.		- Cuall	
Remarks:						
VEGETATION - Use scier	ntific names of plar	nts.	Domin Specie			
Torra Camatum (Diotoire: 5 mg	ì	Absolute	Rel.St	rat I	ndica tor	Dominance Test worksheet:
Tree Stratum (Plot size: 5 m 1 Salix lucida	/	% Cover	✓ 100		tatus ACW	Number of Dominant Species
1, Salix lucida		0		0%	ACT	That are OBL, FACW, or FAC: 2 (A)
3				0%		Total Number of Dominant
4.		0		0%		Species Across All Strata:3 (B)
		40	= Total	l Cover		Percent of dominant Species That Are ORL FACW or FAC: 66.7% (A/B)
Sapling/Shrub Stratum (Plot size	::_3 m)					That Are OBL, FACW, or FAC: 66.7% (A/B)
1 Rubus armeniacus		60	100		ACU	Prevalence Index worksheet:
2,				0%		Total % Cover of: Multiply by:
and the				0% 0%		OBL species 0 x 1 = 0
4 5.				0%		FACW species 65 x 2 = 130
-				l Cover		FACI species 0 x 3 = 0 FACI species 60 x 4 = 240
Herb Stratum (Plot size: 1 m)	- 60	- 10ta	. wver		^ ^ ^
1 Equisetum telmateia		25	1 00	0.0%	ACW	or L species x 3 -
2,		0	$\overline{}$.0%		Column Totals: 125 (A) 370 (B)
3				0%		Prevalence Index = B/A = 2.960
4		0		0% 0%		Hydrophytic Vegetation Indicators:
5				0%		1 - Rapid Test for Hydrologic Vegetation
6				0%		✓ 2 - Dominance Test is > 50%
8		0		.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
9,		0	0.	.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
10				.0%		5 - Wetland Non-Vascular Plants 1
11				.0%		Problematic Hydrophytic Vegetation (Explain)
		25	= Total	l Cover		
Woody Vine Stratum (Plot size:)	•		004		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,				0%		Hydrophytic
2				0%		Vegetation
0/s Page Ground in Honk Charter	75	0	- iota	l Cover		Present? Yes No
% Bare Ground in Herb Stratum	75					
Remarks:						
*Indicator suffix = National sta	tus or professional decision	assigned beca	use Rea	ional sta	tus not d	lefined by FWS.

US Army Corps of Engineers





Torrie Descr	iption: (Des	cribe to	are acpair	needed to docu	ment the ind	icator or co	onlirm the	absence of indicators.)
Depth		Matrix			Redox Feat	ures		
(inches)	Color (r	noist)	0/0	Color (mois	st) %	Type 1	Loc2	Texture Remarks
0-4	10YR	3/1	100%					Silt Loam
4-7	10YR	3/1	99%	10YR 4	1/4 1%	С	M	Silty Clay Loam
7-20	10YR	3/1	95%	10YR - 4	1/4 5%	C	M	Silty Clay Loam
			<u> </u>				\equiv	
Contract Contract			St. March Scotts	uced Matrix, CS=		200	rains ² Loc	ation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils ³ :
Black Hist Hydrogen	oedon (A2)	Surface (A	11)	Stripped Loamy N	ledox (S5) I Matrix (S6) Mucky Mineral (Gleyed Matrix (d Matrix (F3)		in MLRA 1)	2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks)
Thick Dar Sandy Mu	k Surface (A1 ck Mineral (S yed Matrix (S	(2) (1)	_	Depleted	ark Surface (F d Dark Surface depressions (F8	(F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Туре:	ayer (if pres	sent):						Hydric Soil Present? Yes No
Depth (inc								
	ilesy.							Tyuncount resent. Tes of No
emarks:		cators:						Typin controller. Tes of the
emarks: odrology etland Hyd	y rology Indi		one requir	red: check all th	nat apply)			
emarks: odrology etland Hyd imary Indi Surface V	rology Indicators (min	imum of	one requir		-Stained Leave	s (B9) (exce	pt MLRA	Secondary Indicators (minimum of two re
drology tland Hyd imary Indi Surface V High Wat	rology Indicators (min Vater (A1) er Table (A2)	imum of	one requir	Water 1, 2, 4	-Stained Leave IA, and 4B)	s (B9) (exce	pt MLRA	Secondary Indicators (minimum of two re Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
erdrology etland Hyd imary Indi Surface V High Wat Saturatio	rology Indicators (min Vater (A1) er Table (A2)	imum of	one requir	☐ Water 1, 2, 4 ☐ Salt Co	-Stained Leave A, and 4B) rust (B11)		pt MLRA	Secondary Indicators (minimum of two re Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
enarks: drology etland Hyd imary Indi Surface V High Wat Saturatio Water Ma	rology India cators (min Vater (A1) er Table (A2) n (A3) urks (B1)	imum of	one requir	Water 1, 2, 4 Salt Co	-Stained Leave (A, and 4B) rust (B11) ic Invertebrate	s (B13)	pt MLRA	Secondary Indicators (minimum of two re Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)
rdrology etland Hyd imary India Surface V High Wat Saturatio Water Ma Sediment	rology India cators (min Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2)	imum of	one requir	Water 1, 2, 4 Salt Ci Aquati	-Stained Leave (A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od	s (B13) or (C1)		Secondary Indicators (minimum of two re Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
emarks: rdrology etland Hyd imary Inde Surface W High Wat Saturatio Water Ma Sediment Drift depo	rology Indicators (min vater (A1) er Table (A2) in (A3) Triss (B1) Deposits (B3)	<u>imum of</u>) 2)	one requir	Water 1, 2, 4 Salt Co Aquati Hydro	-Stained Leave IA, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphere	s (B13) or (C1) es on Living		Secondary Indicators (minimum of two re 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)
ydrology etland Hyd imary Indi Surface V High Wate Sadiment Drift depo Algal Mat	rology Indicators (min Vater (A1) er Table (A2) nrks (B1) Deposits (B3) or Crust (B4)	<u>imum of</u>) 2)	one requir	Water 1, 2, 4 Salt Ci Aquati Hydro Oxidiz Preser	-Stained Leave AA, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphere nce of Reduced	s (B13) or (C1) es on Living I I Iron (C4)	Roots (C3)	Secondary Indicators (minimum of two re 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)
emarks: ydrology etland Hyd fimary Indi Surface V High Wat Sadiment Drift dept Algal Mat Iron Depx	rology Indicators (min Vater (A1) er Table (A2) n (A3) Deposits (B1) Do cr Crust (B4) or Crust (B4)	i <u>mum of</u>) 2)	one requir	Water 1, 2, 4 Salt Ci Aquati Hydro Oxidiz Preser Receni	-Stained Leave HA, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphere nce of Reduced t Iron Reductic	s (B13) or (C1) es on Living l I Iron (C4) on in Tilled S	Roots (C3)	Secondary Indicators (minimum of two re 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)
emarks: rdrology etland Hyd imary Indi Surface V High Water Ma Sediment Drift depo Algal Mat I ron Depx Surface S	rology Indicators (min Vater (A1) er Table (A2) nr(A3) nr(A5) Deposits (B1) Deposits (B3) or Crust (B4)	imum of) 2))		Water 1, 2, 4 Salt Cr Aquati Hydro Oxidiz Preser Recent	-Stained Leave A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphero ice of Reduced t Iron Reduction	s (B13) or (C1) es on Living l I Iron (C4) on in Tilled S Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two re 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)
emarks: rdrology etland Hyd imary Indi Surface V High Water Ma Sediment Drift dept Algal Mat Iron Dept Surface S Inundation	rology Indicators (min Vater (A1) er Table (A2) orks (B1) Deposits (B3) or Crust (B4 osits (B5)	imum of) 2)) 6) Aerial Ima	gery (B7)	Water 1, 2, 4 Salt Cr Aquati Hydro Oxidiz Preser Recent	-Stained Leave HA, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphere nce of Reduced t Iron Reductic	s (B13) or (C1) es on Living l I Iron (C4) on in Tilled S Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two re 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)
emarks: ydrology etland Hyd imary Indi Surface V High Wate Sediment Drift depo Algal Mat I ron Depo Surface S I nundatio Sparsely	rology Indicators (min Vater (A1) er Table (A2) in (A3) inks (B1) Deposits (B3) or Crust (B4) soits (B5) oil Cracks (Bin Visible on in Vegetated Co	imum of) 2)) 6) Aerial Ima	gery (B7)	Water 1, 2, 4 Salt Cr Aquati Hydro Oxidiz Preser Recent	-Stained Leave A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphero ice of Reduced t Iron Reduction	s (B13) or (C1) es on Living l I Iron (C4) on in Tilled S Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two re 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)
emarks: rdrology etland Hyd imary Indi Surface V High Wat Sediment Drift depr Algal Mat I ron Depx Surface S I nundatio Sparsely	rology Indicators (min Vater (A1) er Table (A2) n (A3) Deposits (B3) or Crust (B4) sits (B5) oil Cracks (B in Visible on a Vegetated Co	imum of) 2)) Aerial Ima	gery (B7)	Water 1, 2, 4 Salt Ci Aquati Hydro Oxidiz Preser Recen Stunte Other	-Stained Leave A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphero ice of Reduced t Iron Reduction	s (B13) or (C1) es on Living l I Iron (C4) on in Tilled S Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two re 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)
ydrology etland Hyd imary Indi Surface V High Wat Sediment Drift dept Algal Mat I ron Dept Surface S I nundatio Sparsely	rology Indicators (min Vater (A1) er Table (A2) nrks (B1) Deposits (B3) or Crust (B4) soits (B5) oil Cracks (Bin Visible on av Vegetated Co ations: Present?	imum of) 2) 6) Aerial Imanorave Sui	gery (B7) faœ (B8)	Water 1, 2, 4 Salt Ci Aquati Hydro Oxidiz Preser Recen Stunte Other	-Stained Leave (A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphere noe of Reduced it Iron Reduction ed or Stressed (Explain in Ref	s (B13) or (C1) es on Living l I Iron (C4) on in Tilled S Plants (D1) (Roots (C3)	Secondary Indicators (minimum of two re 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)
ydrology etland Hyd rimary Indi Surface V High Wat Sediment Drift depo Algal Mat I non Dep Surface S I nundatio Sparsely eld Observ urface Water atter Table P	rology Indicators (min /ater (A1) er Table (A2) er Table (A2) in (A3) rks (B1) Deposits (B2) of Crust (B4) osits (B5) oil Cracks (Bi on Visible on a Vegetated Co ations: Present?	imum of) 2) 6) Aerial Imanorave Sui	gery (B7) fface (B8) No (Water 1, 2, 4 Salt Ci Aquati Hydro Oxidiz: Preser Recen Stunte Other	-Stained Leave A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphera noe of Reduced t Iron Reduction of or Stressed (Explain in Res	s (B13) or (C1) es on Living i I Iron (C4) on in Tilled S Plants (D1) (marks)	Roots (C3) oils (C6) (LRR A)	Secondary Indicators (minimum of two re 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)
ydrology fetland Hyd Surface V High Wat Sediment Drift depe Algal Mat I non Dep Surface S I nundatio Surface S Ledd Observ. Ledd Observ	rology Indicators (min / vater (A1) er Table (A2) in (A3) in (A3) or Crust (B4) in Visible on Vegetated Coations: Present? seent? lary fringe)	imum of) 2) 6) Aerial Imanoncave Sun Yes Yes Yes	gery (B7) fface (B8) No (No	Water 1, 2, 4 Salt Ci Aquati Hydro Oxidiz: Preser Recen Stunte Other	-Stained Leave A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphen nee of Reduced t Iron Reductio d or Stressed (Explain in Rei th (inches):	s (B13) or (C1) es on Living I I ron (C4) on in Tilled S Plants (D1) (marks)	Roots (C3) oils (C6) (LRR A) Wetta	Secondary Indicators (minimum of two re 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)
ydrology /etland Hyd Surface V High Wate Sediment Drift deper Algal Mat Iron Dep Surface S Inundate Surface S Inundate Valed Observ Urface Table P Indudes capital	rology Indicators (min / vater (A1) er Table (A2) in (A3) in (A3) or Crust (B4) in Visible on Vegetated Coations: Present? seent? lary fringe)	imum of) 2) 6) Aerial Imanoncave Sun Yes Yes Yes	gery (B7) fface (B8) No (No	Water 1, 2, 4 Salt Ci Aquati Hydro Oxidiz: Preser Stunte Other Dept Dept Dept	-Stained Leave A, and 4B) rust (B11) ic Invertebrate gen Sulfide Od ed Rhizosphen nee of Reduced t Iron Reductio d or Stressed (Explain in Rei th (inches):	s (B13) or (C1) es on Living I I ron (C4) on in Tilled S Plants (D1) (marks)	Roots (C3) oils (C6) (LRR A) Wetta	Secondary Indicators (minimum of two re 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)





Project/Site: 4th & Miller				ity/	County	: Oregon City	Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC							State: OR Sampling Point: SP_15
nvestigator(s): Joe Bettis				Se	ection, T	ownship, R	ange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope			Loc	al relief	f (concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2			Lat.: 45	.34	510107		Long.: -122.6213179 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ck outcron	complex m					NWI classification:
e climatic/hydrologic conditions on					Ye	es 💿 No 🤇	and the second s
Are Vegetation . , Soil .	, or Hydro		significantly				Normal Circumstances" present? Yes No
							production and the second
\re Vegetation □ , Soil □ Summary of Findings - At	or Hydro, tach site		naturally prolonomature nowing sa				eded, explain any answers in Remarks.) rations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿		_	T	e Sampled /	
Hydric Soil Present?	Yes 🔾	No 💿			5777		V () N- (a)
Wetland Hydrology Present?	Yes 🔾	No 💿			withi	in a Wetland	d?
VEGETATION - Use scien	tific nam	es of plar	nts.		minant ecles?		
Tree Stratum (Plot size:	Ÿ		Absolute % Cover			Indicator Status	
1,			90 COVET		0.0%	Julius	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2,			0		0.0%		
3			0		0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4.			0		0.0%		
Sapling/Shrub Stratum (Plot size:	3 m)		= T	otal Cov	ver	Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
1 Rubus armeniacus			90	✓	90.0%	FACU	Prevalence Index worksheet:
2. Acer macrophyllum			10		10.0%	FACU	Total % Cover of: Multiply by:
3					0.0%		OBL species 0 x 1 = 0
4					0.0%		FACW species0 x 2 =0
5				Щ	0.0%		FAC species x 3 =0
Herb Stratum (Plot size: 1 m)		100	= T	otal Cov	ver	FACU species x 4 =
1 Hedera helix			7	~	58.3%	FACU	UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$
2. Convolvulus arvensis						UPL	column Totals:112 (A)453 (B)
3			0		0.0%		Prevalence Index = B/A = 4.045
4			0		0.0%		Hydrophytic Vegetation Indicators:
5			0		0.0%		1 - Rapid Test for Hydrologic Vegetation
6				님	0.0%		2 - Dominance Test is > 50%
7				片	0.0%	-	3 - Prevalence Index is ≤3.0 ¹
8				금	0.0%		4 - Morphological Adaptations ¹ (Provide supporting
10					0.0%		data in Remarks or on a separate sheet)
11,			0		0.0%		5 - Wetland Non-Vascular Plants 1
			12	= T	otal Cov	ver	Problematic Hydrophytic Vegetation 1 (Explain)
Woody Vine Stratum (Plot size:)					Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,				님	0.0%		100 100 100 100 100 100 100 100 100 100
2				Ц	0.0%		Hydrophytic Vegetation
% Bare Ground in Herb Stratum	: 90		0	= T	otal Cov	ver	Present? Yes No •
Remarks:							1
round Na							
<u> </u>							

US Army Corps of Engineers





Depth		Matrix			Redo	x Featu	res			
(inches)	Color (%	Color (r		9/0	Type 1	Loc2	Texture	Remarks
0-12	10YR	3/1	100%						Silt Loam	
12-20	10YR	3/1	97%	10YR	4/4	3%		M	Silty Clay Loam	
								<u> </u>		_
	centration. D							ains ² Loc	ration: PL=Pore Lining. M	
	Indicators:	(Applical	ole to all LF)			olematic Hydric Soils ³ :
Histosol (pedon (A2)				dy Redox (S oped Matrix				2 cm Muck (A10	· ·
Black Hist					my Mucky M		1) (except	in MLRA 1)		
_	Sulfide (A4)				my Gleyed I			,	- Other (Explain)	ii Neiliaiks)
_	Below Dark S		11)	Dep	leted Matrix	x (F3)				
Thick Dar	k Surface (At	12)			ox Dark Sur				3Indicators of hydropl	nytic vegetation and
Sandy Mu					leted Dark		(F7)		wetland hydrology	must be present,
	eyed Matrix (Red	ox depressi	ons (F8)			unless disturbed or	problematic.
estrictive L	ayer (if pre	sent):								
Type:	- 1901								Hydric Soil Present?	Yes ○ No •
	hec)									
Depth (inc Remarks:									Tryunc 3011 Present?	160 100
Remarks:									Tryunc 30n Present?	165 100
Remarks:	y	cators:							Tryunc 30n Present?	ies o nu o
ydrolog Yetland Hyd Surface N	y Irology Indi icators (min Nater (A1)	imum of	one require	□ w	all that app ater-Stained 2, 4A, and	d Leaves	(B9) (exce	pt MLRA	Secondary Inc	dicators (minimum of two required the leaves (B9) (MLRA 1, 2,
ydrolog Vetland Hyd Primary Indi Surface N	y Irology Indi icators (min Vater (A1) zer Table (A2)	imum of	one require	□ w.	ater-Stained	d Leaves 4B)	(89) (exce	pt MLRA	Secondary Inc Water-Stai 4A, and 48	dicators (minimum of two require- ned Leaves (B9) (MLRA 1, 2,)
ydrolog Vetland Hyd Primary Ind Surface N High Wat	y Irology Indi icators (min Vater (A1) per Table (A2) n (A3)	imum of	one require	□ W. 1, □ Sa	ater-Stained 2, 4A, and	d Leaves 4B) L1)		pt MLRA	Secondary Inc Water-Stai 4A, and 48	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,
Vetland Hydrolog Vetland Hyd Surface V High Wat Saturatio Water Ma	y Irology Indi icators (min Vater (A1) per Table (A2) n (A3)	i <u>mum of</u>	one require	□ W. 1, □ Sa □ Ac	ater-Stained 2, 4A, and alt Crust (B1	d Leaves 4B) 11) tebrates	(B13)	pt MLRA	Secondary Inc Water-Stai 4A, and 48 Drainage F	licators (minimum of two required ned Leaves (B9) (MLRA 1, 2,) atterns (B10)
lydrolog Vetland Hyc Primary India Surface I High Wat Saturatio Water Ma	y Irology Indi Icators (min Water (A1) Err Table (A2) In (A3) Errks (B1)	i <u>mum of</u>	one require	☐ W. 1, ☐ Sa ☐ Ac ☐ Hy	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver	d Leaves 4B) L1) tebrates Ifide Odo	(B13) r (C1)		Secondary Inc Water-Stai 4A, and 48 Drainage F Dry Seasor Saturation	dicators (minimum of two required ned Leaves (B9) (MLRA 1, 2,) atterns (B10) n Water Table (C2)
lydrolog Vetland Hyc Primary Indi Surface \(\) High Wat Saturatio Water M Sediment	y Irology Indi icators (min Water (A1) wer Table (A2 n (A3) arks (B1) t Deposits (B; osits (B3)	i <u>imum of</u>) 2)	one require	W. 1,	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver	d Leaves 4B) L1) tebrates Ifide Odo ospheres	(B13) r (C1) s on Living I		Secondary Inc Water-Stai 4A, and 48 Drainage F Dry Seasor Saturation Geomorph	dicators (minimum of two requirement Leaves (B9) (MLRA 1, 2,) atterns (B10) a Water Table (C2) Visible on Aerial Imagery (C9)
ydrolog Vetland Hyd Primary Indi Surface V High Wat Saturation Water M Sediment	y Irology Indi icators (min Water (A1) For Table (A2 or As (B1) Deposits (B; osits (B3)	i <u>imum of</u>) 2)	one reauir	W. 1, Sa Ac Hy O Pr	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver ydrogen Sul xidized Rhiz	d Leaves 4B) (1) tebrates (fide Odo cospheres Reduced I	(B13) r (C1) s on Living I Iron (C4)	Roots (C3)	Secondary Inc Water-Stai 4A, and 48 Drainage F Dry Seasor Saturation Geomorph Shallow Ac	dicators (minimum of two require- ned Leaves (B9) (MLRA 1, 2,) atterns (B10) a Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2)
iydrolog: Vetland Hyc Primary Indi Surface \ High Wat Saturatio Water Me Drift dep Algal Mat	y Irology Indi icators (min Water (A1) Water (A2) or (A3) or (A4) or (imum of 2) 6)		W 1, Sa Ac	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver- ydrogen Sul xidized Rhiz resence of R	d Leaves 4B) (1) tebrates (fide Odo cospheres Reduced I	(B13) r (C1) s on Living I Iron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Season Saturation Geomorph Shallow Ac FAC-neutra	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,) latterns (B10) I Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) uitard (D3)
ydrolog: Vetland Hyc Primary Indi Surface \ High Water M Water M Algal Mat Iron Dep Surface S	y Irology Indi icators (min Water (A1) Water (A1) Fr Table (A2, In (A3) E Deposits (B1) E Deposits (B3) For Crust (B4 osits (B5)	imum of 2) 6)		W 1, Sa Ac Hy Ox Pr Re	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver- ydrogen Sul xidized Rhiz resence of R ecent Iron R	d Leaves 4B) (1) tebrates Ifide Odo ospheres Reduced I Reduction ressed Pl	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,) latterns (B10) water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3)
ydrolog: Vetland Hyc Primary Indi Surface \ High Wat Sediment Drift dep Algal Mat Iron Dep Surface S Inundation	y Irology Indi icators (min Water (A1) Water (A2) or (A3) or (A4) or (imum of) 2) 3) 6) Aerial Ima	gery (8 <i>7</i>)	W 1, Sa Ac Hy Ox Pr Re	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver- ydrogen Sul xidized Rhiz resence of R ecent Iron R unted or St	d Leaves 4B) (1) tebrates Ifide Odo ospheres Reduced I Reduction ressed Pl	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra	dicators (minimum of two requiremed Leaves (B9) (MLRA 1, 2,) atterns (B10) a Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A)
lydrolog Vetland Hyc Primary Indi Surface N Saturatio Water Ma Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely	y Irology Indi ccators (min Water (A1) For Table (A2 nrks (B1) Deposits (B; osits (B3) Or Crust (B4 osits (B5) Foil Cracks (B on Visible on Vegetated Cc	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	W 1,	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver- ydrogen Sul xidized Rhiz resence of R ecent Iron R unted or St	d Leaves 4B) (1) tebrates Ifide Odo ospheres Reduced I Reduction ressed Pl	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) uitard (D3) il Test (D5) Mounds (D6) (LRR A)
Iydrolog: Vetland Hyc Primary Indi Surface \ High Wat Saturatio Water Mi Drift dep Algal Mat Iron Dep Surface S Inundatio	y Irology Indi cators (min Water (A1) Water (A1) Arr Table (A2 n (A3) Deposits (B1) Deposits (B3) Or Crust (B4 osits (B5) Soil Cracks (B on Visible on Vegetated Cc ations:	imum of) 2) 6) Aerial Ima	gery (8 <i>7</i>)	W 1, Sa Ac	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver- ydrogen Sul xidized Rhiz resence of R ecent Iron R unted or St	d Leaves 4B) 11) tebrates Ifide Odo ospheres Reduced I Reduction rressed Pl n in Rem	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) ic Position (D2) uitard (D3) il Test (D5) Mounds (D6) (LRR A)
lydrolog: Vetland Hyc Primary Indi Surface \ High Wat Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely	y Irology Indi cators (min Water (A1) Water (A1) Water (A6) Water (A6) Deposits (B6) Or Crust (B4) Osits (B5) Or Crust (B4) Osits (B5) Or Visible on Vegetated Cc ations:	2) 6) Aerial Ima	gery (B7) face (B8)	W 1,	ater-Stainer 2, 4A, and alt Crust (B1 quatic Inver ydrogen Sul xidized Rhiz resence of R ecent Iron R unted or St ther (Explain	d Leaves 4B) 11) tebrates lfide Odo cospheres Reduced I Reduction rressed Pi n in Rem	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra	dicators (minimum of two requiremed Leaves (B9) (MLRA 1, 2,) latterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) to Position (D2) uitland (D3) nl Test (D5) Mounds (D6) (LRR A) the Hummocks (D7)
Iydrolog Vetland Hyc Primary Indi Surface \ High Wat Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely	y Irology Indi icators (min Water (A1) For Table (A2, In (A3) For Deposits (B1) For Crust (B4 soits (B5) For Crust (B4 soits (B4 soits (B5) For Crust (B4 soits () 2) 6) Aerial Imanoncave Sur	gery (B7) face (B8) No (W 1,	ater-Stained 2, 4A, and alt Crust (B1 quatic Inver ydrogen Sul xidized Rhiz resence of R ecent Iron R unted or St ther (Explain	d Leaves 4B) 11) tebrates ifide Odo ospheres Reduced I Reduction ressed Pi n in Rem	(B13) r (C1) s on Living I Tron (C4) n in Tilled So	Roots (C3) pils (C6) LRR A)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra	dicators (minimum of two requirement Leaves (B9) (MLRA 1, 2,) batterns (B10) Water Table (C2) Visible on Aerial Imagery (C9) to Position (D2) uitard (D3) to Test (D5) Mounds (D6) (LRR A) to Hummocks (D7)
lydrolog Vetland Hyc Primary Indi Surface \(\) High Wat Sediment Drift dep Algal Mat Iron Dep Surface \(\) Inundatel Sparsely Field Observe Surface Table P Surface S	y Irology Indi icators (min Vater (A1) ver Table (A2 n (A3) arks (B1) t Deposits (B) soits (B3) to or Crust (B4 soits (B5) soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	imum of) 2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) face (B8) No (1) No (1)	W I,	ater-Stainer 2, 4A, and alt Crust (B1 quatic Inver ydrogen Sul xidized Rhiz resence of R acent Iron R tunted or St ther (Explain Depth (inch Depth (inch	d Leaves 4B) 11) tebrates ifide Odo cospheres Reduced I Reduction ressed PI n in Rem es): es):	(B13) r (C1) s on Living I Iron (C4) in Tilled Si lants (D1) (Roots (C3) pils (C6) LRR A)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra Raised Ant Frost Heav	dicators (minimum of two requirement Leaves (B9) (MLRA 1, 2,) batterns (B10) Water Table (C2) Visible on Aerial Imagery (C9) to Position (D2) uitard (D3) to Test (D5) Mounds (D6) (LRR A) to Hummocks (D7)
Iydrolog: Vetland Hyc Primary Indi Surface \ High Wat Saturatio Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely Field Observ Surface Water Water Table P Saturation Pre	y Irology Indi icators (min Vater (A1) ver Table (A2 n (A3) arks (B1) t Deposits (B) soits (B3) to or Crust (B4 soits (B5) soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	imum of) 2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) face (B8) No (1) No (1)	W I,	ater-Stainer 2, 4A, and alt Crust (B1 quatic Inver ydrogen Sul xidized Rhiz resence of R acent Iron R tunted or St ther (Explain Depth (inch Depth (inch	d Leaves 4B) 11) tebrates ifide Odo cospheres Reduced I Reduction ressed PI n in Rem es): es):	(B13) r (C1) s on Living I Iron (C4) in Tilled Si lants (D1) (Roots (C3) pils (C6) LRR A)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra Raised Ant Frost Heav	dicators (minimum of two require ned Leaves (B9) (MLRA 1, 2,)) latterns (B10) latterns (B10) lyater Table (C2) lyisible on Aerial Imagery (C9) lo Position (D2) luitard (D3) lattest (D5) lounds (D6) (LRR A) le Hummocks (D7)
lydrolog Vetland Hyc Primary Indi Surface \(\) High Wat Sediment Drift dep Algal Mat Iron Dep Surface \(\) Inundatel Sparsely Field Observe Surface Table P Surface S	y Irology Indi icators (min Vater (A1) ver Table (A2 n (A3) arks (B1) t Deposits (B) soits (B3) to or Crust (B4 soits (B5) soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	imum of) 2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) face (B8) No (1) No (1)	W I,	ater-Stainer 2, 4A, and alt Crust (B1 quatic Inver ydrogen Sul xidized Rhiz resence of R acent Iron R tunted or St ther (Explain Depth (inch Depth (inch	d Leaves 4B) 11) tebrates ifide Odo cospheres Reduced I Reduction ressed PI n in Rem es): es):	(B13) r (C1) s on Living I Iron (C4) in Tilled Si lants (D1) (Roots (C3) pils (C6) LRR A)	Secondary Inc Water-Stai 4A, and 4B Drainage F Dry Seasor Saturation Geomorph Shallow Ac FAC-neutra Raised Ant Frost Heav	dicators (minimum of two requirement Leaves (B9) (MLRA 1, 2,) batterns (B10) Water Table (C2) Visible on Aerial Imagery (C9) to Position (D2) uitard (D3) to Test (D5) Mounds (D6) (LRR A) to Hummocks (D7)





Project/Site: 4th & Miller		c	ity/County:	Oregon City	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_16
nvestigator(s): Joe Bettis			Section, To	wnship, R	ange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope		Local relief (concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	.34509732		Long.: -122.6212987 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ade autoron commisse ma				NWI classification:
e climatic/hydrologic conditions or			20	● No (
re Vegetation, Soil		significantly of			
	_				The second secon
re Vegetation , Soil	, or Hydrology	naturally prob	olematic?	(If ne	eded, explain any answers in Remarks.)
Summary of Findings - A	ttach site map sh	owing sai	mpling po	oint loc	ations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○				
Hydric Soil Present?	Yes No		Is the	Sampled A	
Wetland Hydrology Present?	Yes O No 💿		within	a Wetland	_{d?} Yes ○ No
Remarks:	160 100				
Remarks:					
VEGETATION - Use scier	ntific names of plan	its	Dominant		
VEGETATION - esc scien	reme marries or plan		Species? -		Ta
Tree Stratum (Plot size: 5 m)	% Cover	Rel.Strat. Cover	Indicator Status	
1, Salix lucida		20	1 00.0%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2,		0	0.0%		
3		0	0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4		0	0.0%		
(all the second		20	= Total Cove	r	Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)
Sapling/Shrub Stratum (Plot size	: <u>3 m</u>)		400.004		That Are Got, TAGY, of TAG.
1, Rubus armeniacus			100.0%	FACU	Prevalence Index worksheet:
2			0.0%	-	Total % Cover of: Multiply by:
3 4.		0	0.0%		OBL species x 1 =
5.			0.0%		FAC species 30 x 2 = 60 FAC species 0 x 3 = 0
			= Total Cove		00 220
Herb Stratum (Plot size: 1 m)	- 80	- Iotal Cove		^ ^ ^
1 Equisetum telmateia		10	1 00.0%	FACW	ort species
2,		0	0.0%		column Totals: 110 (A) 380 (B)
3		_ 0	0.0%		Prevalence Index = B/A = 3.455
4		0_	0.0%		Hydrophytic Vegetation Indicators:
5		0	0.0%		☐ 1 - Rapid Test for Hydrologic Vegetation
6			0.0%		✓ 2 - Dominance Test is > 50%
7.————————————————————————————————————			0.0%		3 - Prevalence Index is ≤3.0 ¹
9		0	0.0%		4 - Morphological Adaptations ¹ (Provide supporting
10		0	0.0%		data in Remarks or on a separate sheet)
11		0	0.0%		5 - Wetland Non-Vascular Plants 1
		10	= Total Cove	r	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,			0.0%		1965 2
2		0	0.0%		Hydrophytic Vegetation
		0	= Total Cove	r	Present? Yes No
% Bare Ground in Herb Stratum	1:_90				
Remarks:	·				
*Indicator suffix = National sta	tus or professional decision	assigned beca	use Regional s	tatus not d	lefined by PWS.

US Army Corps of Engineers





wite Descriptions (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix (Inches) Color (moist) % Color (moist) % Tyre. Loc2 Texture Remarks 14 107 37 107 37 107 47 107 47 37 107	Depth (inches) 0-4 4-16 16-20	Color (n 10YR 10YR	Matrix noist) 3/1 3/1	90 100% 97%	Color (Redo (moist) 4/4	% Featu % 3%	Type 1	Loc2	Texture Remarks Silt Loam
Inches Color (moist) 96	0-4 4-16 16-20	Color (n 10YR 10YR	3/1 3/1	97%	10YR	(moist) 4/4	3%	_Tvpe ¹		Silt Loam
10-20 107R 3/1 109% 107R 4/4 3% C M Sity Clay Loam 16-20 107R 2/1 95% 107R 4/4 3% C M Sity Clay Loam 16-20 107R 2/1 95% 107R 4/4 3% C M Sity Clay Loam 16-20 107R 2/1 95% 107R 4/4 3% C M Sity Clay Loam 16-20 107R 2/1 95% 107R 4/4 3% C M Sity Clay Loam 16-20 107R 2/1 107R 2/2 107R 2	0-4 4-16 16-20	10YR	3/1	97%		· — ·				
16-20 10YR 2/1 95% 10YR 4/4 3% C M Sity Cley Loam	16-20					· — ·		С	М	Silty Clay Loam
// Indicators (Applicable to all LRRs, unless otherwise noted.)		10YR	2/1	95%	10YR	4/4				
Histosic (A1) Sandy Redox (55) Sandy Mark Hinteral (51) Sandy Gleyed Martix (54) Sandy Mark Hinteral (51) Water Hinteral (51) Salt mark (51) Salt	/pe: C=Conce		_				3%	С	М	Silty Clay Loam
Indicators (Applicable to all LRRs, unless otherwise noted.)	pe: C=Conce							_		
thydrogen Sulfide (A4)	Histosol (A1 Histic Epipe	idicators: (1) edon (A2)			Rs, unles	s otherwise ndy Redox (S ripped Matrix	e noted. (55) (56))		Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2)
Type:	Hydrogen S Depleted Be Thick Dark S Sandy Muck Sandy Gleye	Sulfide (A4) elow Dark S Surface (A1 k Mineral (S ed Matrix (S	2) 1) 4)	1)	☐ De	epleted Matrix dox Dark Sur epleted Dark	x (F3) rface (F6) Surface ()		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Adrology Setland Hydrology Indicators: Imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) Surface Water (A2) Saturation (A3) Sat Crust (B11) Aquatic Invertebrates (B13) Water Marks (B1) Aquatic Invertebrates (B13) Drift deposits (B2) Algal Mat or Crust (B4) Inon Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B8) Med Observations: face Water Present? Yes No Depth (inches): The Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): The Wetland Hydrology Present? Yes No The Wetland Hydr	****	yer (if pres	ent):							
traind Hydrology Indicators: mary Indicators (minimum of one required: check all that apply) Secondary Indicators (minimum of two required: check all that apply) Secondary Indicators (minimum of two required: check all that apply) Secondary Indicators (minimum of two required: check all that apply) Secondary Indicators (minimum of two required: check all that apply) Secondary Indicators (minimum of two required: check all that apply) Water Yasined Leaves (89) (MLRA 1, 2, 4A, and 4B) Saturation (A3) Saturation (A3) Saturation (B1) Water Marks (B1) Secondary Indicators (minimum of two required: check all that apply) Secondary Indicators (minimum of two required: check all that apply) Mater Yasined Leaves (89) (MLRA 1, 2, 4A, and 4B) Porainage Patterns (B10) Drainage Patte		00/1								Hydric Soil Present? Yes No
mary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water-Stained Leaves (B9) (except MLRA A4, and 4B) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): Depth (inches): Torible Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	drology									
Surface Water (A1)	tland Hydro	ology Indic	ators:							
High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Salt Crust (B11) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitand (D3) In on Deposits (B4) Presence of Reduced Iron (C4) Shallow Aquitand (D3) Fract-neutral Test (D5) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) And Observations: Inface Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): There Table Present? Yes No Depth (inches): Depth (inches): There Table Present? Yes No Depth		# / T - 14	mum of	one require						Secondary Indicators (minimum of two requ
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Spansely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches):		1						(B9) (excep	t MLRA	
Water Marks (B1)										
Sediment Deposits (B2)							400	(B13)		
Drift deposits (B3)			Y.		_			. ,		
Algal Mat or Crust (B4)			,			121 (20			nots (C3)	
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): ter Table Present? Yes No Depth (inches): urration Present? Yes No Depth (inches): To Wetland Hydrology Present? Yes No Service Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	20 20								(,	
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No Depth (inches): ter Table Present? Yes No Depth (inches): uration Present? Yes No Depth (inches): Depth (inches): T Wetland Hydrology Present? Yes No Service Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:									ils (C6)	
Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (88) Id Observations: face Water Present? Yes No Depth (inches): ter Table Present? Yes No Depth (inches): uration Present? Yes No Depth (inches): To Wetland Hydrology Present? Yes No Secribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:		5 5	i)							
Sparsely Vegetated Concave Surface (83) Id Observations: face Water Present?	Inundation	Visible on A	erial Imag	gery (B7)						
face Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): To Wetland Hydrology Present? Yes No Depth (inches): To Wetland Hydrology Present? Yes No Service Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	Sparsely Ve	egetated Co	ncave Surf	face (B8)						
Face Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): To Wetland Hydrology Present? Wetland Hydrology Present? Yes No Depth (inches): Depth (inches): To Wetland Hydrology Present? Yes No No Depth (inches): No Depth (inches): To Wetland Hydrology Present? Yes No No Depth (inches): No Depth (inches): To Wetland Hydrology Present?	d Observat	tions								
uration Present? Yes No Depth (inches): 7 Wetland Hydrology Present? Yes No entering Suddes capillary fringe) Suddes capillary fringe) Wetland Hydrology Present? Yes No entering Suddes Capillary fringe) Wetland Hydrology Present? Yes No entering Suddes Capillary fringe) No entering Suddes Capillary fringe)			Yes	O No @	•	Depth (inch	ies):		1	
uration Present? Yes No Depth (inches): 7 Wetland Hydrology Present? Yes No Studes capillary fringe) Scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	race Water P	esent?	Yes	● No ○)	Depth (inch	nes):	10	í	
scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:				● No C)	CONTRACTOR ACCOUNT			Wetla	and Hydrology Present? Yes O No 💿
	ater Table Pre turation Prese		Vac		-	Debai (inch		,	J,	
marke:	ater Table Pre turation Prese Icludes capilla	ry fringe)	1.34		aitanall	a anial rate a			i\ i4	f available.
	ater Table Pre turation Prese Icludes capilla	ry fringe)	1.34		nitor well,	, aerial pho	tos, pre	vious inspe	ections), if	f available:





Project/Site: 4th & Miller			City/County:	Oregon Cit	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_17
nvestigator(s): Joe Bettis			Section, To	wnship, F	Range: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.34509806		Long.: -122.6214184 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outcrop complex in				NWI classification:
e climatic/hydrologic conditions on				o No €	dis.
re Vegetation, Soil	, or Hydrology	significantly			Normal Circumstances" present? Yes No
		10			
re Vegetation, Soil	, or Hydrology	naturally pro	piematic?	(If ne	eeded, explain any answers in Remarks.)
Summary of Findings - At	tach site map s	howing sa	mpling p	oint lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ○ No •		Is the	Sampled	Area
Hydric Soil Present?	Yes No				V () N- (a)
Wetland Hydrology Present?	Yes O No 💿		within	ı a Wetlan	id?
Remarks:					
VEGETATION - Use scien	ntific names of pla	nts.	Dominant		
		Absolute	Species? Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5 m)	% Cover	Cover	Status	Number of Dominant Species
1, Salix lucida		50	100.0%	FACW	That are OBL, FACW, or FAC: (A)
2,			0.0%		Total Number of Dominant
3			0.0%		Species Across All Strata:4(B)
4			0.0%		Percent of dominant Species
Sapling/Shrub Stratum (Plot size:	:3m)	50	= Total Cov	er	That Are OBL, FACW, or FAC: 25.0% (A/B)
1. Rubus armeniacus		50	✓ 100.0%	FACU	Prevalence Index worksheet:
2.		0	0.0%		Total % Cover of: Multiply by:
3		0	0.0%		OBL species 0 x 1 = 0
4		0	0.0%		FACW species 50 x 2 = 100
5			0.0%		FAC species 0 x 3 = 0
Hart Stratum (Plateira: 1 -	,	50	= Total Cov	er	FACU species65 x 4 =260
Herb Stratum (Plot size: 1 m)	10	€ 66.7%	FACU	UPL species $0 \times 5 = 0$
2. Polystichum munitum			✓ 33.3%	FACU	column Totals: 115 (A) 360 (B)
3.			0.0%		Prevalence Index = B/A =3.130_
4		0	0.0%		hydrophytic Vocatation Indicators
5		_ 0	0.0%		Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrologic Vegetation
6			0.0%		2 - Dominance Test is > 50%
7			0.0%	-	3 - Prevalence Index is ≤3.0 ¹
8			0.0%		4 - Morphological Adaptations ¹ (Provide supporting
100			0.0%		data in Remarks or on a separate sheet)
10.————————————————————————————————————		0	0.0%		5 - Wetland Non-Vascular Plants 1
116		15	= Total Cov	er	Problematic Hydrophytic Vegetation 1 (Explain)
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1,		_ 0	0.0%		be present, unless disturbed or problematic.
2		0	0.0%		Hydrophytic
		0	= Total Cov	er	Vegetation Present? Yes ○ No ●
% Bare Ground in Herb Stratum	85				
Remarks:					•
*Indicator suffix = National sta	tus or professional decisio	on accioned beca	ura Pagianal	ctatus not	defined by BMS

US Army Corps of Engineers





	puom (be			eeded to d				Jillilli ule	absence of indicators.)
Depth		Matrix				ox Featu			
(inches)	Color (%	Color (m	ioist)	0/0	Type 1	Loc2	Texture Remarks
0-7	10YR	3/1	100%	400/0		3%			Silt Loam
7-10	10YR	3/1	97%	10YR	4/4	370	C	M	Silty Clay Loam
10-20	10YR	3/1	90%	10YR	4/6	10%			Silty Clay Loam
dric Soil I Histosol (A Histic Epip	ndicators: A1) pedon (A2)		n. RM=Reduc	Rs, unless	otherwise ly Redox (S ped Matrix	e noted.) 55) (56))		cation: PL=Pore Lining. M=Matrix Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2)
Depleted I Thick Dark Sandy Mu Sandy Gle	Sulfide (A4) Below Dark S k Surface (A: ck Mineral (S yed Matrix (Surface (A: 12) S1) S4)	11)	Loan Depl	ny Gleyed eted Matri ox Dark Su eted Dark ox depressi	Matrix (F2 x (F3) rface (F6) Surface (2)	in MLRA 1)	Other (Explain in Remarks) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type:	ayer (if pre	sent):							
	1 1970								Hydric Soil Present? Yes No
Depth (inchemarks:	hes):								NAMES OF THE OWNER OWNER OWNER OF THE OWNER
emarks: vdrology etland Hyd	y rology Indi					-1.5			
rdrology etland Hyd imary India Surface W	/ rology Indi cators (mir	imum of	one require	☐ Wa	ter-Staine 2, 4A, and	d Leaves 4B)	(89) (exce	pt MLRA	Secondary Indicators (minimum of two requ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
emarks: /drology etland Hyd imary India Surface W High Wate	rology Indi cators (mir Vater (A1) er Table (A2 n (A3)	imum of	one require	☐ Wa 1,	iter-Staine 2, 4A, and It Crust (B:	d Leaves 4B) 11)		pt MLRA	Secondary Indicators (minimum of two required Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
rdrology etland Hyd fimary India Surface W High Wate Saturation	rology Indi cators (min Vater (A1) er Table (A2 n (A3) rrks (B1)	imum of	one require	☐ Wa 1,: ☐ Sal ☐ Aq	ater-Staine 2, 4A, and It Crust (B: uatic Inver	d Leaves 4B) 11) rtebrates	(B13)	pt MLRA	Secondary Indicators (minimum of two required water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2)
ydrology etland Hyd imary Indi Surface W High Wab Saturation Water Ma	rology Indi cators (min Vater (A1) er Table (A2 n (A3) urks (B1) Deposits (B	imum of	one require	Wa 1, Sal Aq	iter-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su	d Leaves 4B) 11) rtebrates lfide Odor	(B13) r (C1)		Secondary Indicators (minimum of two requirements of two requirements) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
ydrology etland Hyd imary Indi Grift Wat High Wat Saturatio Water Ma Sediment Drift depo	rology Indi cators (min Vater (A1) er Table (A2 n (A3) orks (B1) Deposits (B soits (B3)	i <u>imum of</u>) 2)	one require	Wa 1,: Sai Aq Hy	iter-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su idized Rhiz	d Leaves 4B) 11) rtebrates Ifide Odor	(B13) r (C1) on Living I		Secondary Indicators (minimum of two requirements) 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)
ydrology etland Hyd imary Indi Grift Wat High Wat Saturatio Water Ma Sediment Drift depo	rology Indi cators (mir Vater (A1) er Table (A2 in (A3) in (A8) in (A8) Deposits (B osits (B3) or Crust (B4	i <u>imum of</u>) 2)	one require	Wa 1, Sall Aq Aq Ox	ater-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su idized Rhiz esence of F	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I	(B13) r (C1) on Living I fron (C4)	Roots (C3)	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)
emarks: ydrology etland Hyd rimary Indii Surface W High Watu Saturation Water Ma Sediment Drift depc Algal Mat I ron Depc	rology Indi cators (mir Vater (A1) er Table (A2 in (A3) in (A8) in (A8) Deposits (B osits (B3) or Crust (B4	i <u>imum of</u>) 2)	one require	Walt, Sall Aq	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F	d Leaves 4B) 11) rtebrates lfide Odor rospheres Reduced I Reduction	(B13) r (C1) on Living I	Roots (C3)	Secondary Indicators (minimum of two requirements) 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)
drology stland Hyd mary Indi Surface W High Wate Saturation Water Ma Sediment Drift depoc Algal Mat Iron Depx Surface S	rology Indi cators (mir Vater (A1) er Table (A2 n (A3) Deposits (B soits (B3) or Crust (B4 osits (B5)	imum of 2) 6)		Walth	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I Reduction tressed Pl	(B13) r (C1) on Living I fron (C4) in Tilled So	Roots (C3)	Secondary Indicators (minimum of two required by Mater-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)
emarks: rdrology etland Hyd imary Indi Surface W High Water Ma Sediment Drift depo Algal Mat Iron Depc Surface S Inundatio	rology Indicators (min Vater (A1) er Table (A2 n (A3) orks (B1) Deposits (B3) or Crust (B4 osits (B5)	imum of) 2) 6) Aerial Ima	gery (8 <i>7</i>)	Walth	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F unted or Si	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I Reduction tressed Pl	(B13) r (C1) on Living I fron (C4) in Tilled So	Roots (C3)	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)
emarks: rdrology etland Hyd imary India Surface W High Wata Sadiment Drift depo Algal Mat Iron Depc Surface S Inundatio Sparsely W	rology Indi cators (mir Vater (A1) er Table (A2 in (A3) inks (B1) Deposits (B3) or Crust (B4 soits (B5) oil Cracks (B in Visible on Vegetated Co	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	Wa 1, i Sai Aq Hyu Ox Pre Re Stu	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F unted or Si	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I Reduction tressed Pl	(B13) r (C1) on Living I fron (C4) in Tilled So	Roots (C3)	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)
emarks: rdrology etland Hyd fimary Indii Surface W High Wab Sadiment Drift depo Algal Mat I ron Depo Surface S I nundatio Sparsely W	rology Indicators (mirvater (A1) er Table (A2 n (A3) Deposits (B osits (B3) or Crust (B4 sits (B5) oil Cracks (B on Visible on Vegetated Ca ations:	imum of) 2) 6) Aerial Ima	gery (B7) face (B8)	Waltrian Wal	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F unted or Si	d Leaves 4B) 11) rtebrates Ifride Odor cospheres Reduced I Reduction tressed Pl in in Remain	(B13) r (C1) on Living I fron (C4) in Tilled So	Roots (C3)	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)
emarks: ydrology etland Hyd rimary Indi Surface W High Watu Sadiment Drift depo Algal Mat I ron Depo Surface S I nundatio Sparsely \u00e4	rology Indicators (mirvater (A1) er Table (A2 n (A3) Deposits (B osits (B3) or Crust (B4 sits (B5) oil Cracks (B or Visible on Vegetated Ca ations: Present?	imum of) 2) 6) Aerial Ima	gery (B7) fface (B8)	Want, Sail Aq Hyu	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron f unted or Si her (Explai	d Leaves 4B) 11) tebrates Ifide Odor cospheres Reduced I Reduction tressed Pl in in Remaines):	(B13) r (C1) on Living I fron (C4) in Tilled So	Roots (C3) oils (C6) LRR A)	Secondary Indicators (minimum of two requests) 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)
ydrology Vetland Hyd Ymary Indi Surface W High Wate Saturation Water Ma Sediment Drift depo Algal Mat Iron Depo Surface S Inundatio	rology Indicators (min- vater (A1) er Table (A2 n (A3) rrks (B1) Deposits (B soir Crust (B4 soits (B5) oil Cracks (B on Visible on Vegetated Co ations: Present? resent?	imum of) 2) 6) Aerial Ima	gery (B7) fface (B8) No •	Want, Sail Aq Hyu	ater-Staine 2, 4A, and It Crust (B: uatic Inverdrogen Su idized Rhiz esence of F cent Iron F unted or St her (Explai	d Leaves 4B) 11) rtebrates Ifide Odoi cospheres Reduced I Reduction tressed Pl in in Remaines):	(B13) r (C1) on Living I fron (C4) in Tilled So	Roots (C3) oils (C6) LRR A)	Secondary Indicators (minimum of two required by Mater-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)
ydrology etland Hyd fimary India Surface W High Wab Sediment Drift depo Algal Mat Iron Depc Surface S Inundatio Sparely W eld Observariace Water	rology Indi cators (mir vater (A1) er Table (A2 n (A3) rrks (B1) Deposits (B sits (B3) or Crust (B4 sosits (B5) in Visible on Vegetated Co ations: Present? sent? ary fringe)	2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (B7) fface (B8) No © No ©	Wanting Wantin Wanting Wanting Wanting Wanting Wanting Wanting Wanting Wanting	ater-Staine 2, 4A, and it Crust (B: uatic Inverdrogen Su idized Rhiz seence of F cent Iron If unted or St her (Explained) bepth (inch	d Leaves 4B) 11) rtebrates Ifide Odor cospheres Reduction tressed Pl in in Remi	(B13) r (C1) on Living I ron (C4) in Tilled Sc ants (D1) (arks)	Roots (C3) oils (C6) LRR A)	Secondary Indicators (minimum of two req 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)





Project/Site: 4th & Miller			City/County:	Oregon Cit	Sampling Date: 11-Apr-16
pplicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_18
nvestigator(s): Joe Bettis			Section, To	ownship, R	Nange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	: Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.3450921		Long.: -122.6214039 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outeron compley my				NWI classification:
climatic/hydrologic conditions or				s • No	
re Vegetation, Soil		significantly			Normal Circumstances" present? Yes • No
		10			Total Control of Control
re Vegetation , Soil .		naturally pro			eded, explain any answers in Remarks.)
Company Continue (Continue of Continue of	Yes O No O	owing sa	mpling p	oint loc	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes ● No ○		Is the	Sampled	
Deconstruction Production	Yes No		within	a Wetlan	d? Yes ● No ○
Wetland Hydrology Present?	Tes © NO C				
Remarks:					
VEGETATION - Use scien	ntific names of plan	ts.	Dominant		
	•	Absolute	_Species? Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5 m)	% Cover		Status	
1 Salix lucida		50	✔ 100.0%	FACW	Number of Dominant Species That are OBL, FACW, or FAC:3 (A)
2.		0	0.0%		
3,		0	0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4.		0	0.0%		(5)
		50	= Total Cov	er	Percent of dominant Species That Are ORL FACW or FAC: 75.0% (A/B)
Sapling/Shrub Stratum (Plot size	: 3 m)				That Are OBL, FACW, or FAC: 75.0% (A/B)
1 Rubus armeniacus		50	✓ 100.0%	FACU	Prevalence Index worksheet:
2		0	0.0%		Total % Cover of: Multiply by:
3		0	0.0%		OBL species 5 x 1 = 5
4		0	0.0%		FACW species 80 x 2 = 160
5		0	0.0%		FAC species3 x 3 =9
		50	= Total Cov	er	FACU species
Herb Stratum (Plot size: 1 m)		_		UPL species $0 \times 5 = 0$
1 Equisetum telmateia		15	₹ 36.6%	FACW	column Totals: 141 (A) 386 (B)
2 Epilobium ciliatum		15	₹ 36.6%	FACW	
3 Oenanthe sarmentosa			12.2%	OBL	Prevalence Index = B/A = 2.738
4 Athyrium filix-femina		_ 3_	7.3%	FACU	Hydrophytic Vegetation Indicators:
5_Hedera helix			0.0%	PACU	1 - Rapid Test for Hydrologic Vegetation
6,		0	0.0%		✓ 2 - Dominance Test is > 50%
9			0.0%		✓ 3 - Prevalence Index is ≤3.0 1
9			0.0%		4 - Morphological Adaptations 1 (Provide supporting
10,		0	0.0%		data in Remarks or on a separate sheet)
11,		0	0.0%		5 - Wetland Non-Vascular Plants 1
11.		41	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1.		0	0.0%		be present, unless disturbed or problematic.
2.		0	0.0%		Hydrophytic
		0	= Total Cov	er	Vegetation Present? Yes No
% Bare Ground in Herb Stratum	n: 60				riesella ivi
	00				I
Remarks:					
*Indicator suffix = National sta	tus or professional decision	assigned beca	use Regional	status not o	defined by PWS.

US Army Corps of Engineers





oil											
rofile Descr	iption: (De	scribe to	the depth i	needed to d	ocument	the indic	cator or co	nfirm the	absence of indicato	rs.)	
Depth		Matrix				ox Featu					
(inches)	Color (<u>%</u>	Color (m	ioist)	0/0	Type 1	Loc2	Texture	_	Remarks
0-4	10YR	3/1	100%						Silt Loam	Addition	al redox feature
4-9	10YR	3/1	95%	10YR	4/4	3%		M	Silty Clay Loam	in layer	:10YR 4/6 2% c/p
9-20	10YR	3/1	95%	10YR	4/6	10%		М	Silty Clay Loam		
			=				=				
lydric Soil I Histosol (Indicators: A1)				otherwise ly Redox (e noted.) 55)		ins ²Loc	Indicators for P	roblematic Hyd A10)	Iric Soils ³ :
Black Hist Hydrogen Depleted	Sulfide (A4) Below Dark S	Surface (At	11)	Loan Loan Depl	ny Gleyed eted Matri	Mineral (F Matrix (F x (F3)		n MLRA 1)	Red Parent N Other (Expla	Material (TF2) in in Remarks)	
Sandy Mu Sandy Gle	k Surface (A: ck Mineral (Seyed Matrix (51) 54)		☐ Depl	ox Dark Su eted Dark ox depressi	Surface (³ Indicators of hydr wetland hydrolo unless disturbed	ophytic vegetatio ogy must be prese d or problematic.	
estrictive L	ayer (If pre	sent):									No O
Type:											No.
Type: Depth (incl Remarks:	hes):								Hydric Soil Preser	nt? Yes 🖲	NO (C
Depth (inc	y	cators:							nyanc son Preset	Tes G	
Depth (inclease of the control of th	y Irology Indi	imum of	one requir			d Leaves	(B9) (excep	t MLRA	Secondary	Indicators (min Stained Leaves (8	imum of two requir
Depth (incleanance) ydrology yetland Hyd Chimary Indi Surface V High Wat	y Irology Indi icators (min Vater (A1) ær Table (A2	imum of	one requir	☐ Wa 1,1	iter-Staine 2, 4A, and It Crust (B:	d Leaves 4B) 11)		t MLRA	Secondary	Indicators (min Stained Leaves (8	nimum of two requir 19) (MLRA 1, 2,
pepth (incl. demarks: ydrology /etland Hyd Surface V High Wat Saturatio Water Ma	y Irology Indi icators (min Nater (A1) per Table (A2 n (A3) arks (B1)	imum of	one requir	Wa 1,1 Sal	ater-Staine 2, 4A, and It Crust (B: uatic Inver	d Leaves 4B) 11) rtebrates	(B13)	t MLRA	Secondary Water-5 4A, and	Indicators (minicators (mined Leaves (B	nimum of two requir 19) (MLRA 1, 2,
ydrology /etland Hyd Surface V Saturation Surface V Saturation Surface V Saturation Surface V Saturation	y Irology Indi icators (min Water (A1) er Table (A2 n (A3) erks (B1) t Deposits (B	imum of	one reauir	☐ Wa 1, ☐ Sal ☐ Aq ☐ Hy	iter-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su	d Leaves 4B) 11) rtebrates lfide Odor	(B13) r (C1)		Secondary Water-S 4A, and Drainag Dry Sea	Indicators (min Itained Leaves (B 4B) e Patterns (B10)	imum of two requir 9) (MLRA 1, 2, (C2)
pepth (incl. Remarks: ydrology /etland Hyd Surface V High Wate Sediment Drift depo	y Irology Indi icators (mir Water (A1) wer Table (A2 n (A3) arks (B1) Deposits (B osits (B3)	imum of_) 2)	one reauir	☐ Wa 1,: ☐ Sai ☐ Aq ☐ Hy: ✔ Ox	ater-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su idized Rhiz	d Leaves 4B) 11) rtebrates lfide Odor rospheres	(B13) r (C1) on Living R		Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor	Indicators (min Itained Leaves (B 4B) le Patterns (B10) son Water Table ion Visible on Aer phic Position (D2	imum of two requir 9) (MLRA 1, 2, (C2) ial Imagery (C9)
pepth (incl. emarks: ydrology /etland Hyd mary Indi Surface V High Wat Sadiment Drift dept Algal Mat	y Irology Indi cators (mir Water (A1) Der Table (A2 In (A3) Arks (B1) Deposits (B3) or or Crust (B4	imum of_) 2)	one reauir	☐ Wa 1,: ☐ Sal ☐ Aq ☐ Hy: ✔ Ox ☐ Pre	ater-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su idized Rhiz esence of F	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I	(B13) r (C1) on Living R iron (C4)	oots (C3)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomon	Indicators (min Stained Leaves (B 4B) e Patterns (B10) son Water Table ion Visible on Aer rphic Position (D2 Aquitard (D3)	imum of two requir 9) (MLRA 1, 2, (C2) ial Imagery (C9)
pepth (incl. Remarks: ydrology /etland Hyd Primary Indi Surface W High Wat Sadiment Drift dept Algal Mat Iron Dept	y Irology Indi icators (mir Water (A1) For Table (A2 In (A3) For Table (A3) For Trust (B4 For Tr	i <u>imum of</u>) 2)	one requir	Walth	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I Reduction	(B13) r (C1) on Living R fron (C4) in Tilled So	oots (C3) ils (C6)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow	Indicators (min stained Leaves (B 4B) le Patterns (B10) son Water Table ion Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5)	imum of two requir 9) (MLRA 1, 2, (C2) ial Imagery (C9)
ydrology fetland Hyd mary Indi Surface V High Wat Sediment Drift dep Algal Mat Iron Dep Surface S	y Irology Indi icators (mir Water (A1) Water (A3) Irology Indi icators (A3) Irology Indi icators (B4) Irology Indi icators (B5) Irology Indi Irology	imum of) 2) ;) 6)		Wa 1, Sal Aq Hyı ✓ Ox Pre	ater-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F unted or Si	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I Reduction tressed Pl	(B13) r (C1) on Living R fron (C4) in Tilled So ants (D1) (L	oots (C3) ils (C6)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised J	Indicators (min Stained Leaves (B 4B) se Patterns (B10) son Water Table on Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5) Ant Mounds (D6)	imum of two requii 99) (MLRA 1, 2, (C2) (C2) (ial Imagery (C9) (LRR A)
ydrology fetland Hyd fimary Indi Surface V High Wat Sediment Drift depo Algal Mat Iron Dep Surface S Inundation	y Irology Indi icators (mir Water (A1) For Table (A2 In (A3) For Table (A3) For Trust (B4 For Tr	imum of) 2) 6) Aerial Ima	gery (<i>B7</i>)	Wa 1, Sal Aq Hyı ✓ Ox Pre	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I Reduction tressed Pl	(B13) r (C1) on Living R fron (C4) in Tilled So ants (D1) (L	oots (C3) ils (C6)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised J	Indicators (min stained Leaves (B 4B) le Patterns (B10) son Water Table ion Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5)	imum of two requii 99) (MLRA 1, 2, (C2) (C2) (ial Imagery (C9) (LRR A)
ydrology /etland Hyd Surface V	y Irology Indi ccators (mir Water (A1) cer Table (A2 nr (A3) arks (B1) Deposits (B3) cor Crust (B4 sosits (B5) Soil Cracks (B on Visible on Vegetated Co	imum of) 2) 6) Aerial Ima	gery (<i>B7</i>)	Wa 1, Sal Aq Hyı ✓ Ox Pre	ater-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F unted or Si	d Leaves 4B) 11) rtebrates lfide Odor cospheres Reduced I Reduction tressed Pl	(B13) r (C1) on Living R fron (C4) in Tilled So ants (D1) (L	oots (C3) ils (C6)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised J	Indicators (min Stained Leaves (B 4B) se Patterns (B10) son Water Table on Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5) Ant Mounds (D6)	imum of two requii (9) (MLRA 1, 2, (C2) (C2) (Imagery (C9) (LRR A)
ydrology /etland Hyd Primary Indi Surface V High Wat Sediment Drift dep Algal Mat Iron Dep Surface S Inundatic Sparsely ield Observ.	y Irology Indi cators (mir Water (A1) For Table (A2 In (A3) For Crust (B4 Sosits (B5) For Crust (B4 Fo	imum of) 2) 6) Aerial Imaoncave Sur	gery (<i>B7</i>)	Wa 1, 1 Sal Aq Hy. V Ox Pre Re Stu	ater-Staine 2, 4A, and It Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F unted or Si	d Leaves 4B) 11) rtebrates Ifride Odor cospheres Reduced I Reduction tressed Pl in in Remain	(B13) r (C1) on Living R fron (C4) in Tilled So ants (D1) (L	oots (C3) ils (C6)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised J	Indicators (min Stained Leaves (B 4B) se Patterns (B10) son Water Table on Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5) Ant Mounds (D6)	imum of two requir (C2) (C2) (Imagery (C9) (CRR A)
ydrology Vetland Hyd Primary Indi Surface V V High Wat Drift depr Algal Mat Iron Depx Surface S Inundatio Sparsely ield Observ. urface Water	y Irology Indi cators (mir Vater (A1) Per Table (A2 In (A3) Per Cable (A2 In (A3) Per Cable (A2 In (A3) Per Crust (B4 In (B5) Per Crust (B4 In (B5) Per Crust (B4 In (B5) In (imum of) 2) 6) Aerial Imaoncave Sur	gery (B7) face (B8)	Wa 1, Sai	ater-Staine 2, 4A, and It Crust (B: uatic Inverdogen Su idized Rhiz esence of F cent Iron I unted or St her (Explai	d Leaves 4B) 11) rtebrates Ifide Odor rospheres Reduced I Reduction rtessed Pl in in Remaines):	(B13) r (C1) on Living R iron (C4) in Tilled So ants (D1) (L	oots (C3) ils (C6)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised J	Indicators (min Itained Leaves (B 4B) se Patterns (B10) son Water Table on Visible on Aer rphic Position (D2 Aquitard (D3) Art (D5) Ant Mounds (D6) save Hummocks	imum of two requir 9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
pepth (incl. Remarks: ydrology Vetland Hyd Vetland Hy	y Irology Indi Icators (min Water (A1) Per Table (A2 n (A3) 1t Deposits (B osits (B3) Soil Cracks (B on Visible on Vegetated Co ations: Present? resent?	imum of) 2) 6) Aerial Imaoncave Sur	gery (B7) face (B8) No (Walter Salar	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz esence of F cent Iron F unted or St her (Explai	d Leaves 4B) 11) rtebrates Ifide Odor cospheres Reduced I Reduction tressed Pl in in Remaines):	(B13) r (C1) on Living R fron (C4) in Tilled So ants (D1) (L	oots (C3) ils (C6) RR A)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised J	Indicators (min Stained Leaves (B 4B) e Patterns (B10) son Water Table ion Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5) Ant Mounds (D6) eave Hummocks	imum of two requir 9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
ydrology Vetland Hyd Primary Indi Surface V V Saturatio Drift depo Algal Mat Iron Dep Surface S	y Irology Indi cators (mir Vater (A1) cer Table (A2 n (A3) arks (B1) t Deposits (B osits (B3) c or Crust (B4 cosits (B5) Soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (87) face (88) No (No (No (Walter Salar	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz seence of F cent Iron If unted or St her (Explaine Depth (inch	d Leaves 4B) 11) rtebrates Ifide Odor cospheres Reduction tressed Pl in in Remi	(B13) r (C1) on Living R iron (C4) in Tilled So ants (D1) (L arks)	oots (C3) ils (C6) RR A)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised i Frost Ho	Indicators (min Stained Leaves (B 4B) e Patterns (B10) son Water Table ion Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5) Ant Mounds (D6) eave Hummocks	imum of two requir 9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
ydrology Vetland Hyd Primary Indi Surface V V Saturatio Drift depo Algal Mat Iron Dep Surface S	y Irology Indi cators (mir Vater (A1) cer Table (A2 n (A3) arks (B1) t Deposits (B osits (B3) c or Crust (B4 cosits (B5) Soil Cracks (B on Visible on Vegetated Co ations: Present? sent? lary fringe)	2) 6) Aerial Imanoncave Sur Yes Yes Yes	gery (87) face (88) No (No (No (Walter Salar Sala	ater-Staine 2, 4A, and it Crust (B: uatic Inver drogen Su idized Rhiz seence of F cent Iron If unted or St her (Explaine Depth (inch	d Leaves 4B) 11) rtebrates Ifide Odor cospheres Reduction tressed Pl in in Remi	(B13) r (C1) on Living R iron (C4) in Tilled So ants (D1) (L arks)	oots (C3) ils (C6) RR A)	Secondary Water-S 4A, and Drainag Dry Sea Saturati Geomor Shallow FAC-net Raised i Frost Ho	Indicators (min Stained Leaves (B 4B) e Patterns (B10) son Water Table ion Visible on Aer phic Position (D2 Aquitard (D3) utral Test (D5) Ant Mounds (D6) eave Hummocks	imum of two requir 9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)





Project/Site: 4th & Miller			City/County	: Oregon Cit	ty Sampling Date: 11-Apr-16
applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_19
nvestigator(s): Joe Bettis			Section, 1	Township, F	Range: \$ 01
Landform (hillslope, terrace, etc.):	Toeslope		Local relie	f (concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.34514042		Long.: -122.6214676 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outeron compley m				NWI classification:
e climatic/hydrologic conditions or				es 💿 No (dis.
re Vegetation, Soil		significantly			Normal Circumstances" present? Yes No
	_	19			Total distances product
Are Vegetation, Soil	, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)
Summary of Findings - A	ttach site map sl	nowing sa	mpling	point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O No 🖲		Te th	e Sampled	Δrea
Hydric Soil Present?	Yes ● No ○				V () N- (a)
Wetland Hydrology Present?	Yes O No 💿		with	in a Wetlan	nd?
Remarks:					
VEGETATION - Use scien	ntific names of plar	nts.	Dominant		
A6471 (22) P	-		Species? Rel.Strat.	Indicator	r Dominance Test worksheet:
Tree Stratum (Plot size: 5 m)	% Cover		Status	Number of Dominant Species
1, Salix lucida		50	100.0%	FACW	That are OBL, FACW, or FAC:1(A)
2,			0.0%	-	Total Number of Dominant
3, 4.			0.0%		Species Across All Strata: 4 (B)
T-			= Total Co		Percent of dominant Species
Sapling/Shrub Stratum (Plot size	: 3 m)	50	- Ioai co	ver	That Are OBL, FACW, or FAC: 25.0% (A/B)
1 Rubus armeniacus		20	₹ 80.0%	FACU	Prevalence Index worksheet:
2. Rubus ursinus		5	20.0%	FACU	Total % Cover of: Multiply by:
3			0.0%		OBL species 0 x 1 = 0
4			0.0%		FACW species
5			0.0%		FAC species x 3 = 0
Herb Stratum (Plot size: 1 m)	25	= Total Co	ver	FACU species x 4 =
1 Hedera helix		75	₹ 85.2%	FACU	UPL species $\frac{0}{x}$ x 5 = $\frac{0}{x}$
2. Equisetum telmateia		10	11.4%		column Totals: 163 (A) 532 (B)
3 Polystichum munitum		3	3.4%	FACU	Prevalence Index = B/A = 3.264
4		0	0.0%		Hydrophytic Vegetation Indicators:
5			0.0%		1 - Rapid Test for Hydrologic Vegetation
6,			0.0%		2 - Dominance Test is > 50%
7		0	0.0%		3 - Prevalence Index is ≤3.0 1
8			0.0%		4 - Morphological Adaptations ¹ (Provide supporting
10.			0.0%		data in Remarks or on a separate sheet)
11,		0	0.0%		5 - Wetland Non-Vascular Plants 1
		88	= Total Co	ver	Problematic Hydrophytic Vegetation 1 (Explain)
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1,			0.0%		be present, unless disturbed or problematic.
2		0	0.0%		Hydrophytic Vegetation
		0	= Total Co	ver	Present? Yes No
% Bare Ground in Herb Stratum	1:_0				
Remarks:					
*Indicator suffix = National sta	tus or professional decisio	n assigned beca	use Regiona	l status not o	defined by PWS.

US Army Corps of Engineers





Soil								Sampling Point: SP 19
Profile Descr	ription: (Des	scribe to	the depth ne	eded to docum	ent the ind	icator or co	onfirm the	absence of indicators.)
Depth	_	Matrix			Redox Feat			
(inches)	Color (r		0/0	Color (moist) %	Type 1	Loc2	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
			=				_	
							_	
				ed Matrix, CS=Co			rains ² Loc	ation: PL=Pore Lining. M=Matrix
		(Applica	ble to all LR	Rs, unless othe		.)		Indicators for Problematic Hydric Soils ³ :
Histosol (A1) pedon (A2)			Stripped I	dox (55) Matrix (56)			2 cm Muck (A10)
Black Hist					ıcky Mineral ((F1) (except	in MLRA 1)	Red Parent Material (TF2) Other (Explain in Remarks)
	Sulfide (A4)				eyed Matrix (F		,	Cure (Explain in Nemarks)
Depleted	Below Dark S	Surface (A	11)	Depleted	Matrix (F3)			
☐ Thick Dar	rk Surface (Al	12)			rk Surface (F			3Indicators of hydrophytic vegetation and
Sandy Mu	uck Mineral (S	51)			Dark Surface			wetland hydrology must be present,
	eyed Matrix (S			☐ Redox de	pressions (F8))		unless disturbed or problematic.
Restrictive L	ayer (if pre	sent):						
Type:								Hydric Soil Present? Yes No
Depth (inc	:hes):							nydric soil Present? Yes 🕓 No 🔾
Hydrolog	v							
Wetland Hyd		cators:						
Primary Ind	icators (min Water (A1)	imum of	one require		at apply) Stained Leaves , and 4B)	s (B9) (exce	pt MLRA	Secondary Indicators (minimum of two required Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
	ter Table (A2))		Salt Cru				
Saturatio				_	Invertebrates	e (R13)		Drainage Patterns (B10) Dry Season Water Table (C2)
	t Deposits (B)	2)		_	n Sulfide Ode			Saturation Visible on Aerial Imagery (C9)
	osits (B3)	-)			Rhizosphere		Roots (C3)	Geomorphic Position (D2)
	t or Crust (B4	0			e of Reduced		10005 (00)	Shallow Aquitard (D3)
☐ Iron Dep		2			Iron Reductio		oils (C6)	FAC-neutral Test (D5)
	Soil Cracks (B	6)			or Stressed I			Raised Ant Mounds (D6) (LRR A)
	on Visible on		igery (B7)		xplain in Ren			Frost Heave Hummocks (D7)
Sparsely	Vegetated Co	oncave Su	rface (B8)			,		
Field Observ	ations:							
Surface Water		Yes	O No @	Depth	(inches):			
Water Table P	Procent?	Ves	O No €	Double	(inches):		i	
Saturation Pre				Бери			Wetla	and Hydrology Present? Yes No 💿
(includes capi		Yes	O No 🖲	Depth	(inches):		,	
Describe Rec	orded Data	(stream	gauge, mon	itor well, aeria	photos, pre	evious insp	ections), i	f available:
Remarks:								
verilaris.								





State One Are Touch LC	Project/Site: 4th & Miller			City/County:	Oregon Cit	Sampling Date: 11-Apr-16
Landform (hilslope, terrace, etc.): Toeslope Local relief (concave, convex, none): concave ubregion (LRR): MIRA 2 Lat: 45.34517672 Log.: 122.6214453 Datum: WGS 94 old Map Dunit Namer: Xerochreots-Rock outcroot comolex. moderately steed we Vegetation , soll , or Hydrology significantly disturbed?	pplicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_20
Late 45.34517672 Long.: 122.6214453 Datum: WGS 89	nvestiga tor(s): Joe Bettis			Section, To	ownship, R	Range: S 01 T 3S R 1E
Late 45,34517672		: Toeslope		Local relief	(concave,	
Self Map Unit Name: Xerochreots-Rock outcroo comolex. Moderately steed Self Map Unit Name: Xerochreots-Rock outcroo comolex. Moderately steed No Self Map Unit Name: Xerochreots-Rock outcroo comolex. Yes No Self Map Unit Name: Xerochreots-Rock outcroo comolex. Yes No Self Map Unit Name: Yes No			Lat.: 45			
re dimetatic/hydrologic conditions on the site typical for this time of year? re Vegetation		ock outeron complex				
re Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No re 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 Is the Sample Area within a Wetland? Yes No Is the Sample Area within a Wetland? Yes No Is the Sample Area within a Wetland? Yes No Is the Sample Area within a Wetland? Yes No Is the Sample Area within a Wetland? Yes No Is the Sample Area within a Wetland? Yes No Is the Sample Area within a Wetland? Yes N					s (No (
Source			100			0 0
Summary of Findings - Attack site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No So Wetland Hydrology Present? Yes No So So No So No So S		_	15			To the state of th
Tree Stratum (Plot size: 3 m)	re Vegetation 🔲 , Soil 🗌	, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)
Section Present? Yes No	Summary of Findings - A	ttach site map sh	owing sa	mpling p	oint lo	cations, transects, important features, etc.
Wetland Hydrology Present? Yes	Hydrophytic Vegetation Present?	Yes 💿 No 🔾		Te the	Sampled	Area
VEGETATION - Use scientific names of plants. Dominant Species	Hydric Soil Present?	Yes No				V (a) N- (
VEGETATION - Use scientific names of plants. Dominant Species	Wetland Hydrology Present?	Yes 💿 No 🔾		within	ı a Wetlan	d? ISONO
Species Absolute Species Absolute Species Absolute Species Absolute Species Absolute Species Absolute Species Status Status Status Species S	Remarks:					
Species Absolute Species Absolute Species Absolute Species Absolute Species Absolute Species Absolute Species Status Status Status Species S						
Species Absolute Species Absolute Species Absolute Species Absolute Species Absolute Species Absolute Species Status Status Status Species S						
Species Absolute Species Absolute No Species Absolute Species Absolute Species Absolute Species Absolute Species Status Status Status Status Status Species	VECETATION	-+:6:				
Tree Stratum (Plot size: 5 m) % Cover Cover Status Salik lucida 50	VEGETATION - Use scien	ntific names of plan	its.			
Salik lucida	Torre Charles (Plot size: 5 m	Ÿ.				Dominance Test worksheet:
2						
3	2				TACH	That are OBL, PACW, or PAC:
4.	3					
Sapling/Shrub Stratum (Plot size: 3 m)						Species Across All Strata:
Sapling Shrub Stratum Plot size: 3 m	*		50	= Total Cov	er	
2.	Sapling/Shrub Stratum (Plot size	:: 3 m)		10411 001		That Are OBL, FACW, or FAC: 66.7% (AVB)
3	1, Rubus armeniacus		20	100.0%	FACU	Prevalence Index worksheet:
4.	2		_ 0_	0.0%		Total % Cover of: Multiply by:
Description	3		_ 0_	0.0%		OBL species 5 _ x 1 = 5
Description Plot size: 1 m Plot s				0.0%	-	FACW species 80 x 2 = 160
Equisetum telmateia 25	5			0.0%		FAC species5 x 3 =15
Equisetum telmateia 25	U. t. Ct (Plot size: 1 m	,	20	= Total Cov	er	FACU species x 4 =
2. Glyceria elata 3. Oenanthe sarmentosa 4. Hedera helix 5.	The second second		25	J 52 104	EACW	UPL species x 5 =
3 Oenanthe sarmentosa 4 Hedera helix 5 □ 10.4% FACU 5 Rumex crispus 6 Geranium robertianum 7 □ 0 □ 0.0% 8 □ 0 □ 0.0% 9 □ 0 □ 0.0% 10 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 12 Total Cover Woody Vine Stratum (Plot size:) 1 - Rapid Test for Hydrologic Vegetation □ Indicators: □ 1 - Rapid Test for Hydrologic Vegetation □ 1 - Rapid Test for Hydrologic Vegetation □ 1 - Rapid Test for Hydrologic Vegetation □ 2 - Dominance Test is > 50% 2 - Dominance Test is > 50% 2 - Dominance Test is > 50% 3 - Prevalence Index = B/A = 2.475 Hydrophytic Vegetation Indicators: □ 1 - Rapid Test for Hydrologic Vegetation □ 2 - Dominance Test is > 50% 3 - Prevalence Index = B/A = 2.475 Hydrophytic Vegetation Indicators: □ 1 - Rapid Test for Hydrologic Vegetation □ 2 - Dominance Test is > 50% 4 - Morphological Adaptations □ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants □ □ Problematic Hydrophytic Vegetation □ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes □ No □	•			$\overline{}$		column Totals: 118 (A) 292 (B)
4 Hedera helix 5 □ 10.4% FACU 5 Rumex crispus 6 Geranium robertianum 3 □ 6.3% FACU 7 □ 0 □ 0.0% 8 □ 0 □ 0.0% 9 □ 0 □ 0.0% 10 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 11 □ 0 □ 0.0% 12 □ Dominance Test is > 50% 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) 1 □ 0 □ 0.0% 1 □ Fotal Cover Woody Vine Stratum (Plot size:) 1 □ 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Woody Vine Stratum: 0 □ 0.0% 0 □ 0.0% 1 □ Fotal Cover We Bare Ground in Herb Stratum: 0 □ Total Cover We Bare Ground in Herb Stratum: 0 □ Total Cover						Prevalence Index = B/A = 2.475
5 10.4% FAC 1 - Rapid Test for Hydrologic Vegetation 2 - Dominance Test is > 50% 2 - Dominance Test is > 50% 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) 1 - 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 - 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 - 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 - 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 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation Present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes • No No No No No No No No			5	10.4%	FACU	
3 6.3% FACU	5 Rumex crispus		5	10.4%	FAC	
0	6_Geranium robertianum		3	6.3%	FACU	
8 9 10 10 10 11 11 11 11 12 13 148 = Total Cover Woody Vine Stratum (Plot size:) 1 1 2 10 10 10 10 10 10 10 10 10 10 10 10 10	7					
10.						
11.	10,777		_			
Moody Vine Stratum (Plot size:)						\square 5 - Wetland Non-Vascular Plants 1
Woody Vine Stratum (Plot size:)	11,				er	Problematic Hydrophytic Vegetation 1 (Explain)
1. 0 0.0% be present, unless disturbed or problematic. 2. 0 0.0% Hydrophytic Vegetation Present? Yes No	Woody Vine Stratum (Plot size:)	- 10			¹ Indicators of hydric soil and wetland hydrology must
2.		•	0	0.0%		
© = Total Cover Vegetation Present? Yes ● No ○ % Bare Ground in Herb Stratum: 0						
% Bare Ground in Herb Stratum: 0				= Total Cov	er	
.*	% Bare Ground in Herb Stratum	n: n				
Nemer no.						1
	Remarks:					
	*Indicator suffix = National sta	tus or professional decision	assigned beca	use Regional	status not o	defined by FWS.

US Army Corps of Engineers





Soil										Sampling Poi	nt: SP 20
Profile Descr	iption: (Des	scribe to	the depth	needec	to document	the indi	cator or co	nfirm the	absence of indicators.)	
Depth		Matrix			Red	ox Featu	ires				
(inches)	Color (r	moist)	0/0	Co	lor (moist)	0/0	Type 1	Loc2	Texture	F	temarks
0-3	10YR	3/1	100%						Silt Loam	4.dd2+21	
3-8	10YR	3/1	93%	10Y	R 4/4	5%	С	M	Silty Clay Loam	in layer:10	redox feature DYR 4/6 2% c/pl
8-13	10YR	3/1	95%	10Y	R 4/4	5%	C	M	Silty Clay Loam		
13-20	10YR	2/1	95%	10Y	R 4/4	5%	C	M	Silty Clay Loam	_	
			_				_				
¹Type: C=Con	centration D	=Denletio	n RM=Redu	iced Ma	trix, CS=Covere	ed or Coat	ted Sand Gr	ains 21 or	cation: PL=Pore Lining. M	=Matrix	
**					less otherwis				Indicators for Prol		Soile3
Histosol (,	A1) pedon (A2) ic (A3) Sulfide (A4)				Sandy Redox (Stripped Matri Loamy Mucky Loamy Gleyed Depleted Matri	(S5) x (S6) Mineral (F Matrix (F	F1) (except	in MLRA 1)	2 cm Muck (A10)) erial (TF2)	. 30lis-1
Thick Dar Sandy Mu Sandy Gle	Below Dark S k Surface (A) ick Mineral (S eyed Matrix (S	12) 51) 54)		_	Redox Dark Su Depleted Dark Redox depress	urface (F6 Surface ((F7)		³ Indicators of hydropl wetland hydrology unless disturbed o	must be present	and t,
Restrictive L	ayer (if pre	sent):									
Type:	v 101								Hydric Soil Present?	Yes	No O
Depth (inc Remarks:	hes):			_					riyunc son Fresent?	res 🙂	NO C
Hydrolog	y										
Wetland Hyd	lrology Indi	cators:									
		imum of	one requir	ed; ch	eck all that ap				Secondary Inc	licators (minim	um of two require
	Water (A1)			L	Water-Stains 1, 2, 4A, and	ed Leaves d 4B)	(B9) (excep	t MLRA	Water-Stai 4A, and 4B	ned Leaves (B9)	(MLRA 1, 2,
✓ Saturatio	er Table (A2)	,		Γ	Salt Crust (B					atterns (B10)	
Water Ma				ř	Aquatic Inve		(B13)			Water Table (C	2)
	Deposits (B)	2)		Ī	Hydrogen Su					Visible on Aerial	
Drift dep	and the second	-,		Ī	✓ Oxidized Rhi			Roots (C3)		c Position (D2)	Imagery (CS)
	or Crust (B4	0		Ī	Presence of		-	10015 (00)		uitard (D3)	
☐ Iron Dep		,		Ī	Recent Iron		0.00	ils (C6)	✓ FAC-neutra		
	oil Cracks (B	6)		Ī	Stunted or S					Mounds (D6) (L	RR A)
	on Visible on		gery (B7)	r	Other (Expla					e Hummocks (D)	
	Vegetated Co		E 6 10 10	, .							,
Field Observ	ations:										
Surface Water	Present?	Yes	O No	•	Depth (inc	hes):					
Water Table P		Yes	● No	\supset	Depth (inc	hes):	15]	and Hydrology Present	? Yes ◉	No O
Saturation Pre (includes capil		Yes	● No ()	Depth (inc	hes):	11	Weti	and riydrology Present	/ res ⊚	NO C
Describe Rec	orded Data	(stream	gauge, mo	nitor v	well, aerial pho	otos, pre	vious insp	ections), i	f available:		
Remarks:											





Project/Site: 4th & Miller			City/County:	Oregon Ci	ty Sampling Date: 11-Apr-16
pplicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_21
nvestigator(s): Joe Bettis			Section, T	ownship, f	Range: \$ 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope		Local relief	(concave,	, convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.34511637		Long.: -122.6216079 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outcrop complex m				NWI classification:
e climatic/hydrologic conditions on			90	s • No	1001
re Vegetation, Soil		significantly			Normal Circumstances" present? Yes No
	_	10			To the contract of the contrac
		naturally pro			eeded, explain any answers in Remarks.) cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No	.			
Hydric Soil Present?	Yes ● No ○			Sampled	V () N- (a)
Wetland Hydrology Present?	Yes O No 💿		withi	n a Wetlar	ıd? fes ○ No ◎
Remarks:					
VEGETATION - Use scier	ntific names of plan	nts.	Dominant		
			Species? Rel.Strat.	Indicato	r Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		Status	
1,		0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:2(A)
2,		0	0.0%		Table 40
3,		0	0.0%		Total Number of Dominant Species Across All Strata:3(B)
4		0	0.0%		1
(n)		0	= Total Cov	er	Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)
Sapling/Shrub Stratum (Plot size	:_3 m)		400 000		
1, Rubus armeniacus		90	100.0%	FACU	Prevalence Index worksheet:
2			0.0%		Total % Cover of: Multiply by:
3 4.			0.0%		OBL species 0 x 1 = 0
5.		0	0.0%		FACW species
<u> </u>					FACU species
Herb Stratum (Plot size: 1 m)	90	= Total Cov	er	
1. Equisetum telmateia		5	€ 62.5%	FACW	ort species x 3 =
2. Athyrium filix-femina		3	37.5%	FAC	column Totals:98 (A)379 (B)
3		0	0.0%		Prevalence Index = B/A = 3.867
4			0.0%		Hydrophytic Vegetation Indicators:
5			0.0%	-	1 - Rapid Test for Hydrologic Vegetation
6			0.0%		✓ 2 - Dominance Test is > 50%
<u> </u>			0.0%		3 - Prevalence Index is ≤3.0 1
9			0.0%		4 - Morphological Adaptations ¹ (Provide supporting
10.		0	0.0%		data in Remarks or on a separate sheet)
11.		_ 0	0.0%		5 - Wetland Non-Vascular Plants 1
		8	= Total Cov	er	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:)		_		1 Indicators of hydric soil and wetland hydrology must
1,		0	0.0%		be present, unless disturbed or problematic.
2		0	0.0%		Hydrophytic Vegetation
		0	= Total Cov	ег	Present? Yes No
% Bare Ground in Herb Stratum	95				
Remarks:					
*Indicator suffix = National sta	tus or professional decision	assigned hera	use Pegional	etatue not	defined by EWS

US Army Corps of Engineers





Soil								5	Sampling Point: SP 21
Profile Desc	ription: (Desc	ribe to th	ne depth ne	eded to docu	ment the ind	licator or co	onfirm the	absence of indicators.)	
Depth		Matrix			Redox Feat				
(inches)	Color (m		0/0	Color (mois	st)%	Type 1	Loc2	Texture	Remarks
0-6	10YR	3/1	100%					Silt Loam	
6-20	10YR	3/1	97%	10YR -	1/4 3%	C	M	Silty Clay Loam	
								-	
1Turn: C-Con	contration D-	Dopletion	PM-Poduc	ed Matrix, CS=	Covered or Cov	ated Sand Gr	nine 2loc	ation: PL=Pore Lining, M=N	
			C March House and	Rs, unless oth		200	allis -Luc	Indicators for Proble	20,000
Histosol (кррпсаві	e to all LK		ledox (S5)	,		2 cm Muck (A10)	made Hydric Sons-1
	pedon (A2)				Matrix (S6)			Red Parent Materia	al (TF2)
Black His				Loamy N	łucky Mineral ((F1) (except	in MLRA 1)		1
	Sulfide (A4)				Sleyed Matrix (F2)			
	Below Dark Su		1)		d Matrix (F3)	rc)			
	k Surface (A12				ark Surface (F d Dark Surface			3Indicators of hydrophyt	
	ick Mineral (S1 eyed Matrix (S4	,			epressions (F8			wetland hydrology mu unless disturbed or p	
	ayer (if prese					-			
Type:									
Depth (inc	hes):							Hydric Soil Present?	Yes No
Remarks:	,								
Hydrolog									
	rology Indic								
_	2.1	num of o	ne required	d; check all th		(ne) (ators (minimum of two required)
_	Water (A1)				-Stained Leave A, and 4B)	e (RA) (excel	pt MLKA	Water-Stainer 4A, and 4B)	d Leaves (B9) (MLRA 1, 2,
Saturatio	ter Table (A2)				rust (B11)			☐ Drainage Patt	(P10)
Water M	100				ic Invertebrate	s (R13)		_	/ater Table (C2)
	t Deposits (B2)			_	gen Sulfide Od				sible on Aerial Imagery (C9)
	osits (B3)				ed Rhizosphere		Roots (C3)	Geomorphic F	2 / 1 /
Algal Ma	or Crust (B4)				nce of Reduced		, ,	☐ Shallow Aquit	
☐ Iron Dep	osits (B5)			Recen	t Iron Reductio	n in Tilled So	oils (C6)	FAC-neutral T	
Surface 5	Soil Cracks (B6)		Stunte	d or Stressed	Plants (D1) (LRR A)	Raised Ant Me	ounds (D6) (LRR A)
Inundation	on Visible on A	erial Imag	ery (B7)	Other	(Explain in Rer	marks)		Frost Heave H	lummocks (D7)
Sparsely	Vegetated Cor	icave Surf	ace (B8)						
Field Observ	ations:								
Surface Water		Yes	O No O	Dep	th (inches):		7		
Water Table F	Procent?	Yes	O No ①	Don	th (inches):		i		
Saturation Pre				Бер	_		Wetla	and Hydrology Present?	Yes O No 💿
(includes capi	llary fringe)	Yes			th (inches):				
Describe Rec	orded Data (stream g	auge, mon	itor well, aeri	al photos, pr	evious insp	ections), i	f available:	
Remarks:									





roject/Site: 4th & Miller			ity/County:	Oregon Cit	Sampling Date: 11-Apr-16
pplicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_22
nvestigator(s): Joe Bettis			Section, T	ownship, R	ange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.34515474		Long.: -122.6216179 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ock outcrop complex mo				NWI classification:
climatic/hydrologic conditions on			90	s 🖲 No 🤇	and the second s
re Vegetation, Soil		significantly			Normal Circumstances" present? Yes No
		15			The second secon
Are Vegetation , Soil		naturally pro			eded, explain any answers in Remarks.) rations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O No O	owing sa			
Hydric Soil Present?	Yes No		Is the	Sampled A	The state of the s
Wetland Hydrology Present?	Yes No		withi	n a Wetlan	d? Yes ◉ No ○
Remarks:	140				
Remarks.					
VEGETATION - Use scien	tific names of plan	tc	Dominant		
VEGETATION - Ose scien	ittlic riarries or plan		Species?		
Tree Stratum (Plot size:	Ĭ	Absolute % Cover	Rel.Strat.	Indicator Status	
1,		0	0.0%	ourcas	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2,		0	0.0%		That are obt, FACH, or FAC.
3.		0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.		0	0.0%		Species Across All Strata:
		0	= Total Cov	er	Percent of dominant Species
Sapling/Shrub Stratum (Plot size:	3 m)				That Are OBL, FACW, or FAC: 50.0% (A/B)
1, Rubus armeniacus		60	92.3%	FACU	Prevalence Index worksheet:
2. Salix lucida		5	7.7%	FACW	Total % Cover of: Multiply by:
3			0.0%		OBL species 0 x 1 = 0
4			0.0%		FACW species 80 x 2 = 160
5			0.0%		FAC species x 3 =
Herb Stratum (Plot size: 1 m	.)	65	= Total Cov	er	FACU species x 4 =
1 Equisetum telmateia		75	✓ 100.0%	FACW	UPL species $\frac{0}{x}$ x 5 = $\frac{0}{x}$
2.		- 75	0.0%	171017	column Totals:140 (A)400 (B)
3		0	0.0%		Prevalence Index = B/A = 2.857
4		0	0.0%		Hydrophytic Vegetation Indicators:
5		0	0.0%		1 - Rapid Test for Hydrologic Vegetation
6		0	0.0%		2 - Dominance Test is > 50%
7			0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.———			0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9.			0.0%		data in Remarks or on a separate sheet)
10.			0.0%		5 - Wetland Non-Vascular Plants 1
11.———		75	= Total Cov	er	Problematic Hydrophytic Vegetation 1 (Explain)
Woody Vine Stratum (Plot size:	.)				¹ Indicators of hydric soil and wetland hydrology must
1.		0	0.0%		be present, unless disturbed or problematic.
2.		0	0.0%		Hydrophytic
		0	= Total Cov	er	Vegetation Present? Yes No No
% Bare Ground in Herb Stratum	11 25				
Remarks:					1
Kemarks:					

US Army Corps of Engineers





Soll										Sampling Point: SP 22
Profile Desc	ription: (Des	scribe to	the depth r	needed to	documen	t the indic	cator or co	onfirm the	absence of indicators.)
Depth		Matrix			Red	lox Featu	res			
(inches)	Color (moist)	0/0	Color	(moist)	0/0	Type 1	Loc2	Texture	Remarks
0-4	10YR	3/1	100%						Silt Loam	
4-8	10YR	3/1	95%	10YR	4/6	3%	С	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%	С	M	Silty Clay Loam	
							_		-	
¹ Type: C=Cor	centration. D	=Depletio	n. RM=Redu	ced Matrix	, CS=Cover	ed or Coate	ed Sand Gr	ains ² Loc	cation: PL=Pore Lining. M	=Matrix
Hydric Soil	Indicators:	(Applical	ole to all LF	Rs, unles	s otherwi	se noted.))		Indicators for Prol	blematic Hydric Soils ³ :
Histosol ((A1)			Sa Sa	ndy Redox	(55)			2 cm Muck (A10))
Histic Epi	pedon (A2)				ripped Matr				Red Parent Mat	erial (TF2)
Black His					amy Mucky			in MLRA 1)	Other (Explain i	n Remarks)
	n Sulfide (A4)				amy Gleyed		2)			
	Below Dark 9		11)		epleted Mat					
	rk Surface (Al				edox Dark S				3Indicators of hydropl	
	uck Mineral (9	,			epleted Darl edox depres		F/)		wetland hydrology unless disturbed or	must be present,
	eyed Matrix (K6	aox depres	sions (Fo)			unless disturbed of	рговениис.
Restrictive L	ayer (if pre	sent):								
Type:									Hydric Soil Present?	Yes No
Depth (inc	:hes):								riyaric Soli Present?	res 🙂 No 🔾
Hydrolog Wetland Hyd		cators:								
-	icators (min		one require	ed: check	all that ar	(vlac			Secondary Inc	dicators (minimum of two required
Surface	Water (A1)		orre regam		Water-Stain 1, 2, 4A, an	ed Leaves	(B9) (excep	pt MLRA	_	ned Leaves (B9) (MLRA 1, 2,
☐ High Wa	ter Table (A2))			Salt Crust (I					Patterns (B10)
	arks (B1)				Aquatic Inv		(B13)		_	n Water Table (C2)
	t Deposits (B	2)			Hydrogen S					Visible on Aerial Imagery (C9)
	osits (B3)	-,			Oxidized Rh			Poots (C3)		ic Position (D2)
_	t or Crust (B4	0			Presence of			10013 (C3)		quitard (D3)
_	osits (B5)	v.			Recent Iron			ile (C6)		al Test (D5)
	Soil Cracks (B	6)		_	Stunted or 9					Mounds (D6) (LRR A)
	on Visible on		nery (R7)	_				LKK A)		e Hummocks (D7)
	Vegetated Co		E 6 6 6		Other (Expl	ain in Kem	arks)		☐ Prost neav	e Hummocks (D7)
Field Observ	rationa									
Surface Wate		Yes	O No G	•	Depth (inc	:hes):		1		
Water Table F		Ves	● No)	Depth (inc		14	i		
Saturation Pro					Complete Acco			Wetl	and Hydrology Present	? Yes 💿 No 🔾
(includes capi	llary fringe)	Yes	3.04		Depth (inc		10			
Describe Rec	corded Data	(stream	gauge, mo	nitor well	, aeriai ph	otos, pre	vious insp	ections), i	r available:	
Remarks:										





Project/Site: 4th & Miller				ity	/County	: Oregon City	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC							State: OR Sampling Point: SP_23
Investigator(s): Joe Bettis				Se	ection, T	ownship, Ra	ange: S 01 T 3S R 1E
Landform (hillslope, terrace, etc.):	Toeslope			Lo	cal relie	f (concave, o	convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR): MLRA 2			Lat.: 45	5.34	1507821		Long.: -122.6217073 Datum: WGS 84
Soil Map Unit Name: Xerochrepts-Ro	ack outeron	compley m					NWI classification:
re climatic/hydrologic conditions or					Ye	es • No C	N .
Are Vegetation, Soil	, or Hydro		significantly				lormal Circumstances" present? Yes No
	or Hydro, ttach site		naturally pro howing sa				eded, explain any answers in Remarks.) ations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿			Ī., .,		•
Hydric Soil Present?	Yes O	No 💿			5777	e Sampled A	V () W- (a)
Wetland Hydrology Present?	Yes 🔾	No 💿			with	in a Wetland	in res o No o
Remarks:							
VEGETATION - Use scien	ntific nam	es of plai	nts.	Do	ominant		
		•	Absolute		ecles?	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5 m)		% Cover		over	Status	Number of Dominant Species
1, Acer macrophyllum			25	✓	50.0%	FACU	That are OBL, FACW, or FAC:1(A)
2, Prunus emarginata			25	V	50.0%	FACU	Total Number of Dominant
3,				Ц	0.0%		Species Across All Strata:5(B)
4			0	Ш	0.0%		Borsont of deminant Species
Sapling/Shrub Stratum (Plot size	3 m)	50	= 1	Total Cov	ver	Percent of dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)
1 Rubus armeniacus			15	_	55.6%	FACU	Prevalence Index worksheet:
2. Frangula purshiana				~		FAC	Total % Cover of: Multiply by:
3. Rubus ursinus			_ 5	님	18.5%	FACU	OBL species
4				Н	0.0%		FACW species 5 x 2 = 10
5				Ч	0.0%		FAC species $7 \times 3 = 21$
Herb Stratum (Plot size: 1 m)		27	= 1	Total Cov	ver	FACU species 145 x 4 = 580
1 Hedera helix			75	~	93.8%	FACU	UPL species x 5 =
2. Equisetum telmateia			5		6.3%	FACW	Column Totals: 157 (A) 611 (B)
3			_ 0		0.0%		Prevalence Index = B/A = 3.892
4			0		0.0%		Hydrophytic Vegetation Indicators:
5			0	닏	0.0%		1 - Rapid Test for Hydrologic Vegetation
6				H	0.0%		2 - Dominance Test is > 50%
7				H	0.0%		3 - Prevalence Index is ≤3.0 1
9					0.0%		4 - Morphological Adaptations 1 (Provide supporting
10.			0		0.0%		data in Remarks or on a separate sheet)
11,			0		0.0%		5 - Wetland Non-Vascular Plants 1
			80	= 1	Total Cov	ver	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:		_)					Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,				Н	0.0%		100 ID
2				Щ	0.0%		Hydrophytic Vegetation
% Bare Ground in Herb Stratun	1: 20		0	= 1	Total Co	ver	Present? Yes No •
	20						I
Remarks:							
*Indicator suffix = National sta	tue or profes	ional decisio	n accioned beca		Pagiana	I status not de	ofined by BMS

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

US Army Corps of Engineers





Soil Sampling Point: SP 23 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth Color (moist) 0/0 Color (moist) Loc2 0-20 10YR 100% Silt Loam 3/2 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Stripped Matrix (S6) Histic Epipedon (A2) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except in MLRA 1) Other (Explain in Remarks) Black Histic (A3) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) 3 Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Sandy Muck Mineral (S1) Redox depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Hydric Soil Present? Yes O No . Depth (inches): Remarks: Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Surface Water (A1) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) High Water Table (A2) Salt Crust (B11) Saturation (A3) Drainage Patterns (B10) Aquatic Invertebrates (B13) Water Marks (B1) Dry Season Water Table (C2) ☐ Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Yes O No 💿 Depth (inches): Surface Water Present? Yes O No 💿 Water Table Present? Depth (inches): Wetland Hydrology Present? Yes O No 💿 Yes O No 💿 Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available: Remarks:

US Army Corps of Engineers





Project/Site: 4th & Miller		c	ity/County:	Oregon City	Sampling Date: 11-Apr-16
Applicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_24
nvestigator(s): Joe Bettis			Section, To	wnship, R	ange: \$ 01 T_3S R_1E
Landform (hillslope, terrace, etc.)	: Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	.34509632		Long.: -122.6217114 Datum: WGS 84
oil Map Unit Name: Xerochrepts-R	a ale acutavan a annulace na				NWI classification:
e climatic/hydrologic conditions o			20	● No C	
re Vegetation, Soil		time or year? significantly o			
					or an annual property
re Vegetation, Soil	, or Hydrology	naturally prob	olematic?	(If ne	eded, explain any answers in Remarks.)
Summary of Findings - A	ttach site map sh	owing sai	mpling p	oint loc	ations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○		T		
Hydric Soil Present?	Yes ● No ○		Is the	Sampled A	
Wetland Hydrology Present?	Yes No		within	a Wetland	d? Yes No
Remarks:	100 100				
Remarks:					
VEGETATION - Use scie	ntific names of plan	to	Dominant		
VEGETATION - Ose scie	ittilic riarries or plan		Species? .		1
Tree Stratum (Plot size:	ÿ	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1,			0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2,			0.0%		That die obly from your reci
3.			0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4		0	0.0%		
		_ 0	= Total Cove	er	Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
Sapling/Shrub Stratum (Plot size	e: 3 m)	200			That Are Obt, FACW, or FAC.
1 Rubus armeniacus			83.3%	FACU	Prevalence Index worksheet:
2, Rubus ursinus		5_	16.7%	FACU	Total % Cover of: Multiply by:
3 4.		0	0.0%		OBL species 0 x 1 = 0
5.		0	0.0%		FAC species 65 x 2 = 130 FAC species 5 x 3 = 15
-			= Total Cove	-	20 120
Herb Stratum (Plot size: 1 m)		- Iotal cove		
1 Equisetum telmateia		60	₹ 85.7%	FACW	or Lapacies X 3 - X
2. Athyrium filix-femina		5	7.1%	FAC	column Totals: 100 (A) 265 (B)
3_Epilobium ciliatum		5	7.1%	FACW	Prevalence Index = B/A = 2.650
4			0.0%		Hydrophytic Vegetation Indicators:
5		0	0.0%		☐ 1 - Rapid Test for Hydrologic Vegetation
6			0.0%		2 - Dominance Test is > 50%
8		0	0.0%		3 - Prevalence Index is ≤3.0 ¹
9		0	0.0%		4 - Morphological Adaptations 1 (Provide supporting
10		_ 0	0.0%		data in Remarks or on a separate sheet)
11.			0.0%		5 - Wetland Non-Vascular Plants 1
		70	= Total Cove	er	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:)	_			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,			0.0%		
2			0.0%		Hydrophytic Vegetation Present? Yes No
20 2 1 0 1 0		0	= Total Cove	er	Present? Yes No
% Bare Ground in Herb Stratur	m: 0				l
Remarks:					
*Indicator suffix = National st	atus or professional decision	assigned beca	use Regional s	status not d	efined by PWS.

US Army Corps of Engineers





Page 1	Depth Matrix Secondary Depth Seconda	oil	rintion: (Do	cribe to	the denth =	seeded to do	umant the ind	licator or co	ofirm the	Sampling Point: SP 24
Color (molet) 96	Inches Color (molet) % Color (molet) % Type: Loc: Texture Remarks		ription: (De		те аерт п	leeded to doc			ilirm the	absence of indicators.)
107R 3/2 100% 107R 3/2 100% 107R 4/4 5% C M Sity Clay Loam 12:20 107R 3/1 95% 107R 4/4 5% C M Sity Clay Loam 12:20 107R 3/1 95% 107R 4/4 5% C M Sity Clay Loam 12:20 107R 3/1 95% 107R 4/4 5% C M Sity Clay Loam 12:20 107R 3/1 95% 107R 4/4 5% C M Sity Clay Loam 12:20 107R 3/1 95% 107R 4/4 5% C M Sity Clay Loam 12:20 107R 3/1 95% 107R 4/4 5% C M Sity Clay Loam 12:20 107R	10 10 10 10 10 10 10 10		Color (0/0	Color (mo		-	Loc2	Texture Remarks
### 4-12 ### 10/18 #	### 12					COIOI TIIIO			Lou	
yper C=Concentration. D=Depletion: RM=Reduced Metrix, CS=Covered or Coated Sand Grains	yps: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains *** *** *** *** *** *** *** *** *** *	4-12	10YR		95%	10YR	4/4 5%	С	М	Silty Clay Loam
Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosic (A1)	Histoso (A1) Sandy Redox (53) Carming (A1) Carming (A2)	12-20	10YR	3/1	95%	10YR	4/4 5%	c	М	Silty Clay Loam
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils Indicators for Problematic Hydric Hydrogon Hy	Histoso (A1) Sandy Redox (53) Carming (A1) Carming (A2)				=					
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Depleted Dark Surface (F8) Depleted Dark Surface (F8) Depleted Dark Surface (F8) Depleted Dark Surface (F7) Depleted Dark Surface (F8) Depleted Dark S	Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Seven Matrix (S4) Strictive Layer (if present): Type: Dapth (inches): Beath Mineral (S1) Depleted Dark Surface (F5) Depleted Dark Surface (F7) Wetand hydrology must be present, unless disturbed or problematic. Wetand hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No	Histosol (Histosol (Histic Epi Black His	Indicators: (A1) (pedon (A2) tic (A3)	(Applical		Rs, unless ot Sandy Strippe Loamy	herwise noted Redox (S5) ed Matrix (S6) Mucky Mineral ((F1) (except in		Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2)
Type:	Type:	Depleted Thick Dar Sandy Mo	Below Dark S rk Surface (A uck Mineral (S eyed Matrix (S	Surface (A 12) 51) 54)	11)	☐ Depleto ☐ Redox ☐ Depleto	ed Matrix (F3) Dark Surface (F ed Dark Surface	6) (F7)		wetland hydrology must be present,
Agal Mat or Crust (84) Presence of Reduced Iron (C4) Sallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Surface Soil Cracks (B6) Sur	rdrology tetland Hydrology Indicators: imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Posturation (A3) Salt Crust (B11) Drainage Patterns (B10) Dry Season Water RB10 Dry Season Water Table (C2) Sediment Deposits (B2) Dry Season Water Table (C2) Sediment Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Ceomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Tunudation Visible on Aerial Imagery (B7) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Thou Hydrology Present? Yes No Depth (inches): Depth		ayer (If pre	sent):						
ydrology // retand Hydrology Indicators: // retand Hydrology Indicators: // retand Hydrology Indicators (minimum of one required; check all that apply) Surface Water (A1)	etland Hydrology Indicators: imary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required): Surface Water (A1) Surface Water (A1) Water-Stained Leaves (89) (except MLRA Valuer-Stained Leaves (89) (MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Dry Season Water Table (C2) Saduration Visible on Aerial Imagery (C9) Drift deposits (B3) Dry Season Water Table (C2) Saduration Visible on Aerial Imagery (C9) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Surface Soil	Depth (inc	thes):							Hydric Soil Present? Yes No
Secondary Indicators (minimum of two required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B11) Water Marks (B1) Drainage Patterns (B10) Drift deposits (B3) Drift deposits (B3) Drift deposits (B3) Drift deposits (B3) Again Mat or Crust (B4) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Selived Observations: urface Water Present? Yes No Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	Secondary Indicators (minimum of one required; check all that apply) Surface Water (A1)	<u> </u>								
Surface Water (A1)	Surface Water (A1)									
Saturation (A3)	Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) eld Observations: rface Water Present?	Surface	Water (A1)		one require	☐ Wate	er-Stained Leave	s (B9) (excep	MLRA	
Sediment Deposits (B2)	Sediment Deposits (B2)			,		Salt	Crust (B11)			☐ Drainage Patterns (B10)
Drift deposits (B3)	Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Prost Heave Hummocks (D7) Depth (inches): Tater Table Present? Yes No Depth (inches): Depth					Aqua Aqua	tic Invertebrates	s (B13)		Dry Season Water Table (C2)
Algal Mat or Crust (B4)	Algal Mat or Crust (B4)			2)			(70)	0.0		Saturation Visible on Aerial Imagery (C9)
In In Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) In Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) seld Observations: urface Water Present? Yes No Depth (inches): fater Table Present? Yes No Depth (inches): saturation Present? Yes No Depth (inches): saturation Present? Yes No Depth (inches): secribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	In no Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) eld Observations: Inface Water Present? Yes No Depth (inches): Interval Table Present? Yes No D								oots (C3)	
Surface Soil Cracks (86) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (88) field Observations: urface Water Present? Yes No Depth (inches): fater Table Present? Yes No Depth (inches): faturation Present? Yes No Depth (inches): faturation Present? Yes No Depth (inches): for aturation Pr	Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) eld Observations: Inface Water Present? Yes No Depth (inches): Interval of the present? Interval of the pr	_		+)						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Ideld Observations: Jurface Water Present? Yes No Depth (inches): Joseph (inches): Josep	Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) eld Observations: Inface Water Present? Yes No Depth (inches): Ituration Pre	_		e)						
Sparsely Vegetated Concave Surface (B8) iteld Observations: urface Water Present? Yes No Depth (inches): fater Table Present? Yes No Depth (inches): aturation Present? Yes No Depth (inches): aturation Present? Yes No Depth (inches): Secribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	Sparsely Vegetated Concave Surface (B8) eld Observations: rface Water Present?	_			nery (R7)				RR A)	
urface Water Present? Yes No Depth (inches): D	rface Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): 16 turation Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No No Depth (inches): No Depth (inches): No No Depth (inches): No Depth (inches): No No Depth (inches): No	_				Othe	r (cxpiain in Ker	narks)		Host neave numinous (57)
urface Water Present? Yes No Depth (inches): D	rface Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): 16 turation Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No No Depth (inches): No Depth (inches): No No Depth (inches): No Depth (inches): No No Depth (inches): No	200								
Ves No Depth (inches): 16 Security Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No Depth (inches): 12	atter Table Present? Yes No Depth (inches): 16 Wetland Hydrology Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No Secribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:			Yes	O No G	Dei	oth (inches):			
aturation Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No Depth (inches): 12 Vestand Hydrology Present? No Secrible Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	turation Present? Yes No Depth (inches): 12 Wetland Hydrology Present? Yes No Scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:					5		16		
escribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	courses capillary ringe) scribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:					50			Wetla	and Hydrology Present? Yes No
		includes capi	llary fringe)		3.04	in terres	,			
marks:	marks:	escribe Rec	corded Data	(stream	gauge, mo	nitor well, ae	riai photos, pr	evious inspe	ctions), i	r available:
inia KS:	itel KS;									
		amarke:								





State OR Section Toward Total Continue Section Towards Total Continue Towards Total Continue Towards Total Continue Total	Landform (hillslope, terrace, etc.): Toeslope	Project/Site: 4th & Miller				ity/	County	Oregon City	Sampling Date: 11-Apr-16
Local relief (concave, convex, none): concave Slope: 0.0 % / 0 with relief (concave, convex, none): concave Slope: 0.0 % / 0 atum; WGS 84 of Map Unit Name; Xerochreots-Bock outcoop complex, moderately steed Xerochreots-Bock outcoop complex Xerochreots-Bock outcoop	Lact Associate Lact State State Lact State State State Lact State Stat	Applicant/Owner: Aria Touch LLC							State: OR Sampling Point: SP_25
Late 45,94507218 Long: 122,6218822 Datum; WGS 94	Late 45,34507218	nvestigator(s): Joe Bettis				Se	ection, T	ownship, R	tange: \$ 01 T 3S R 1E
Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.	No	Landform (hillslope, terrace, etc.):	Toeslope			Loc	cal relief	(concave,	convex, none): concave Slope: 0.0 % / 0
Marked M	Marked M	ubregion (LRR): MLRA 2			Lat.: 45	5.34	507218		Long.: -122.6218822 Datum: WGS 84
re climatic/hydrologic conditions on the site typical for this time of year? Yes ® No (If no, explain in Remarks.) reve Vegetation	e climato hydrologic conditions on the site typical for this time of year? Ves		ock outcrop	complex m					
Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No O	Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No No						Ye	s 🖲 No 🤇	~
Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.	Summary of Findings - Attach site map showing sampling point locations, transects, important features, et Phydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland Pydrology Present? Yes No Wetland Pydrology Present? Yes No Wetland Pydrology Present? Yes No Wetland Pydrology Present? Yes No Wetland Pydrology Present? Yes No Wetland Pydrology Present? Yes No Wetland Pydrology Present? Yes No Wetland Pydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetland Pydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetland Pydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetland Pydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Dominance Test worksheet: Namber of Dominant Species Namber of Multiply by: That Are OBL, FACU On Multiply by: That Are OBL, FACU On Namber of Dominant Species Namber of Do				100				
Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc. Pright	Summary of Findings - Attach site map showing sampling point locations, transects, important features, et Phydrophytic Vegetation Present? Yes No Type No The Stratum (Plot size: 5 m				19				Total Circumstances process
Tree Stratum Plot size: 5 m	Tree Stratum								
Wetdand Hydrology Present? Yes No	Vest No Present? Yes No No No No No No No N			300	-	•	T		***************************************
VEGETATION - Use scientific names of plants. Species? Tree Stratum (Plot size: 5 m) Absolute Species? Slatus Species Species Slatus Species Slatus Species Slatus Species Slatus Species Slatus Species Slatus Species Sl	VEGETATION - Use scientific names of plants.	Hydric Soil Present?	Yes 🔾	No 💿					V () N- (a)
VEGETATION - Use scientific names of plants.	Tree Stratum	Wetland Hydrology Present?	Yes 🔾	No 💿			withi	n a Wetland	d?
No contain No	Absolute Rel. Stratum Flot size: 5 m		ntific name	es of plar	nts.				
1, Acer macrophyllum 15	1, Acer macrophyllum 1, Acer macrophyllum 1, Acer macrophyllum 1, Corylus emarginata 1, Corylus comuta 1, Corylus armeniacus 1, Corylus armeniacus 1, Corylus armeniacus 1, Corylus armeniacus 1, Corylus comuta 1,	- (5)				Re	l.Strat.		Dominance Test worksheet:
2. Prunus emarginata 3.	2, Prunus emarginata 15)			_			
3	3	100,000						_	That are OBL, FACW, or FAC:
Sapling/Shrub Stratum (Plot size: 3 m)	Sapiling/Shrub Stratum (Plot size: 3 m)							FACU	
Sapling/Shrub Stratum Plot size: 3 m)	Sapling / Shrub Stratum (Plot size: 3 m) 30					\Box			Species Across All Strata:5(B)
Sapling/Shrub Stratum Plot size: 3 m	That Are OBL, FACW, or FAC:				_			er	
2. Rubus armeniacus 10	2 Rubus armeniacus 10 2 25.0% FACU Total % Cover of: Multiply by:	Sapling/Shrub Stratum (Plot size	3 m)			- Jan - 60 V	-	That Are OBL, FACW, or FAC: 0.0% (A/B)
3.	3.	1, Corylus cornuta			30	✓	75.0%	FACU	Prevalence Index worksheet:
4	4. 0 □ 0.0% FACW species 0 x 2 = 0 Herb Stratum (Plot size: 1 m) 40 = Total Cover FAC species 0 x 3 = 0 Herb Stratum (Plot size: 1 m) 75	production of the same of the			10	✓.	25.0%	FACU	Total % Cover of: Multiply by:
Solution Stratum Plot size: 1 m Stratum Plot size: 2 m Stratum Plot size: 3 m Stratum Stratum Plot size: 3 m Stratum Plot size: 3 m Stratum Stratum Plot size: 3 m Stratum Plot size: 3 m Stratum Strat	Solution Stratum Plot size: 1 m Stratum Plot size: 1 m Stratum Plot size: 1 m Stratum Prevalence Index = B/A = 4.000						9 99 4		OBL species 0 x 1 = 0
Herb Stratum (Plot size: 1 m)	Herb Stratum (Plot size: 1 m)					님			
Herb Stratum (Plot size: 1 m	Herb Stratum (Plot size: 1 m	J				Ц			147 500
Hedera helix 75 97.4% FACU FACU Column Totals: 147 (A) 588 (B)	1	Herb Stratum (Plot size: 1 m)		40	= T	otal Cov	er	The species x
2	2 Lapsana communis 2				75	•	97.4%	FACU	ore species x 3 =
1 - Rapid Test for Hydrologic Vegetation 2 - Dominance Test is > 50% 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) 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 - Rapid Test for Hydrologic Vegetation ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Provide supporting data in Remarks or on a separate sheet) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1 - Rapid Test for Hydrologic Vegetation s ¹ (Explain) 1	1 - Rapid Test for Hydrologic Vegetation 1 - Rapid Test for Hydrologic Vegetation 1 - Rapid Test for Hydrologic Vegetation 2 - Dominance Test is > 50% 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) 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 - Problematic Hydrophytic Vegetation ¹ (Explain) 1 - Problematic Hydrophytic Vegetation 1 - Problematic Hydrophytic	•							Column Totals: 147 (A) 588 (B)
1 - Rapid Test for Hydrologic Vegetation 1 - Rapid Test for Hydrologic Vegetation 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) 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 - Rapid Test for Hydrologic Vegetation sheet 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 - Rapid Test for Hydrologic Vegetation sheet is > 50% 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 - Rapid Test for Hydrologic Vegetation sheet is > 50% 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 - Rapid Test for Hydrophytic Vegetation sheet is > 50% 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ 1 - Rapid Test for Hydrophytic Vegetation sheet is > 50% 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ 5 - Wetland Non-Vascular Plants ¹ 6 - Wetland Non-Vascular Plants ¹ 7 - Total Cover	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) 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 1 - Rapid Test for Hydrologic Vegetation 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation 1 - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation 7	3			0				Prevalence Index = B/A = 4.000
5	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) 1 - Total Cover 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 Vegetation Vegetation Vegetation Present? Yes No ●	4							Hydrophytic Vegetation Indicators:
6	0	T-0				님			
3 - Prevalence Index is ≤3.0 ¹ 9	8.	GA.				H			
10	0	<u> </u>				H			3 - Prevalence Index is ≤3.0 1
10.— 11.— 11.— 12.— 13.— 14.— 15.— 15.— 16.— 17.— 17.— 18.— 19.— 19.— 19.— 19.— 19.— 19.— 19.— 19	10.— 10.— 11.— 11.— 12.— 13.— 14.— 15.— 15.— Wetland Non-Vascular Plants 1 15.— Wetland Non-Vascular Plants 1 1 Problematic Hydrophytic Vegetation 1 (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 0 0.0% 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Hydrophytic Vegetation Present? Yes No •								
11.	11.	607					0.0%		The supply of the state of the
Moody Vine Stratum (Plot size:)	Moody Vine Stratum (Plot size:) Total Cover Problematic Hydrophytic Vegetation 1 (Explain)				0		0.0%		
1. 0 0.0% be present, unless disturbed or problematic. 2. 0 0.0% Hydrophytic Vegetation Present? Yes No ●	1. 0 0.0% be present, unless disturbed or problematic. 2. 0 0.0% Hydrophytic Vegetation Present? Yes No •				77	= T	otal Cov	er	
1.	2. 0 0.0% Hydrophytic Vegetation Present? Yes No **No Bare Ground in Herb Stratum: 25** No □ = Total Cover Present? Yes No □	Woody Vine Stratum (Plot size:		_)					
0 = Total Cover Vegetation Present? Yes ○ No •	© = Total Cover Vegetation Present? Yes ○ No ●								100 100 100 100 100 100 100 100 100 100
		2			_	Ц	30		Venetation
% Bare Ground in Herb Stratum: 25		W.B 6			0	= T	otal Cov	er	
	Remarks:		11, 25						I

US Army Corps of Engineers





Soil Sampling Point: SP 25 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth Color (moist) 0/0 Color (moist) Loc2 0-20 10YR 100% Silt Loam 3/2 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Stripped Matrix (S6) Histic Epipedon (A2) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except in MLRA 1) Other (Explain in Remarks) Black Histic (A3) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) 3 Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Sandy Muck Mineral (S1) Redox depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Hydric Soil Present? Yes O No . Depth (inches): Remarks: Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Surface Water (A1) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) High Water Table (A2) Salt Crust (B11) Saturation (A3) Drainage Patterns (B10) Aquatic Invertebrates (B13) Water Marks (B1) Dry Season Water Table (C2) ☐ Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Yes O No 💿 Depth (inches): Surface Water Present? Yes O No 💿 Water Table Present? Depth (inches): Wetland Hydrology Present? Yes O No 💿 Yes O No 💿 Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available: Remarks:

US Army Corps of Engineers





Project/Site: 4th & Miller			City/County:	Oregon Cit	ty Sampling Date: 11-Apr-16
pplicant/Owner: Aria Touch LLC					State: OR Sampling Point: SP_26
nvestigator(s): Joe Bettis			Section, T	ownship, F	Range: \$ 01
Landform (hillslope, terrace, etc.):	Toeslope		Local relief	(concave,	convex, none): concave Slope: 0.0 % / 0.0
ubregion (LRR): MLRA 2		Lat.: 45	5.34508246		Long.: -122.6218553 Datum: WGS 84
oil Map Unit Name: Xerochrepts-Ro	ack outeron complex m				NWI classification:
e climatic/hydrologic conditions or				s 🖲 No (dis.
re Vegetation, Soil		significantly			Normal Circumstances" present? Yes No
	_	10			The state of the s
re Vegetation , Soil		naturally pro			eeded, explain any answers in Remarks.)
Summary of Findings - A	-	owing sa	mpling p	oint lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O No 🖲		Is the	Sampled	Area
Hydric Soil Present?	Yes No		within	n a Wetlan	nd? Yes ○ No
Wetland Hydrology Present?	Yes • No O		***************************************	ir a vvedan	
Remarks:					
VEGETATION - Use scien	ntific names of plan	nts.	Dominant		
		Absolute	Species? Rel.Strat.	Indicator	r Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		Status	Number of Dominant Species
1,		_ 0_	0.0%		That are OBL, FACW, or FAC:
2,			0.0%		Total Number of Dominant
3,			0.0%		Species Across All Strata:3(B)
4		0	0.0%		Persont of deminant Species
a ti (at t a (Diet size	:3m)	0	= Total Cov	er	Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
Sapling/Shrub Stratum (Plot size	. <u> </u>	30	✓ 100.0%	FACU	
1 Rubus armeniacus		0	0.0%	FACU	Prevalence Index worksheet:
2 3.			0.0%		Total % Cover of: Multiply by: OBL species 0 x 1 = 0
4.			0.0%		FACW species 0 x 2 = 0
5.		0	0.0%		FAC species 10 x 3 = 30
		30	= Total Cov	er	FACU species 35 x 4 = 140
Herb Stratum (Plot size: 1 m	1				UPL species
1 Equisetum telmateia			0.0%	FACW	column Totals: 45 (A) 170 (B)
2. Athyrium filix-femina		10	66.7%	FAC	and the second s
3 Hedera helix			✓ 33.3%	FACU	Prevalence Index = B/A = 3.778
4			0.0%		Hydrophytic Vegetation Indicators:
5		0	0.0%		1 - Rapid Test for Hydrologic Vegetation
7			0.0%		2 - Dominance Test is > 50%
8.		0	0.0%		☐ 3 - Prevalence Index is ≤3.0 ¹
9,		_	0.0%		4 - Morphological Adaptations ¹(Provide supporting data in Remarks or on a separate sheet)
10			0.0%		5 - Wetland Non-Vascular Plants 1
11			0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
	,	15	= Total Cov	er	
Woody Vine Stratum (Plot size:)		_ a.ac:		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1,			0.0%		Hydrophytic
2			0.0%_		Vegetation
0/ Pana Graund in Hank Co.		0	= Total Cov	er	Present? Yes O No O
% Bare Ground in Herb Stratum	11.0				
Remarks:					
*Indicator suffix = National sta	tus or professional decision	assigned beca	use Regional	status not o	defined by PWS.

US Army Corps of Engineers





oil			A - W - 4	2.2				Sampling Point: SP 26
Profile Descr	ription: (Des		the depth n	eeded to do			nfirm the	absence of indicators.)
Depth	Color (Matrix	%	Color (mo	Redox Feat	Tvpe 1	Loc2	Texture Remarks
(inches) 0-6	10YR	3/2	100%	Color time	HST) 70	TVDe	LOC-	Silt Loam
6-20	10YR	3/2	97%	10YR	4/6 3%		M	Silty Clay Loam
					ήσ σπ			Sity City Dutil
**					=Covered or Co		ins ² Loc	ration: PL=Pore Lining. M=Matrix
Hydric Soil I		(Applical	ble to all LK		therwise noted Redox (S5)	1.)		Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10)
	pedon (A2)				ed Matrix (S6)			Red Parent Material (TF2)
Black Hist					Mucky Mineral	(F1) (except i	n MLRA 1)	
_	Sulfide (A4)			Loamy	Gleyed Matrix ((F2)		_ otto (Explain in Fernance)
Depleted	Below Dark 9	Surface (A	11)		ed Matrix (F3)			
Thick Dar	k Surface (At	12)			Dark Surface (F			3Indicators of hydrophytic vegetation and
Sandy Mu	ick Mineral (9	51)			ed Dark Surface			wetland hydrology must be present,
Sandy Gle	eyed Matrix (54)		☐ Redox	depressions (F8	3)		unless disturbed or problematic.
estrictive L	ayer (if pre	sent):						
Type:								W-4-1-5-115 W (A. N ()
Depth (inc	hes):							Hydric Soil Present? Yes No
ydrolog	v							
	rology Indi	cators:						
Primary Ind	icators (min	imum of	one require	d; check all	that apply)			Secondary Indicators (minimum of two requin
_	Water (A1) ter Table (A2	Y			er-Stained Leave 4A, and 4B)	es (B9) (excep	t MLRA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
✓ Saturatio		,		Salt	Crust (B11)			Drainage Patterns (B10)
Water Ma					atic Invertebrate	es (R13)		Dry Season Water Table (C2)
_	t Deposits (B	2)		_	ogen Sulfide Oc			Saturation Visible on Aerial Imagery (C9)
	osits (B3)	-)			ized Rhizosphen		note (C3)	
	t or Crust (B4	o.			ence of Reduced		.00ts (C3)	Geomorphic Position (D2) Shallow Aquitard (D3)
_	osits (B5)	9					1- (00)	
	Soil Cracks (B	٤١			ent Iron Reduction			FAC-neutral Test (D5)
_	on Visible on		con (P7)		ted or Stressed		KK A)	Raised Ant Mounds (D6) (LRR A)
_				☐ Othe	er (Explain in Re	marks)		Frost Heave Hummocks (D7)
_ sparsely	Vegetated Co	nicave Su	rrace (bo)					
ield Observ urface Water		Yes	O No G	Do.	pth (inches):		1	
urface Water Vater Table P			No C	,		17]	
Nater Table P Saturation Pre					pth (inches):	17	Wetla	and Hydrology Present? Yes No
includes capi		Yes	● No C) De	pth (inches):	12	<u></u>	
escribe Rec	orded Data	(stream	gauge, mor	nitor well, ae	rial photos, pr	revious inspe	ections), i	f available:
emarks:								





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

Literature Citations





- Adamus, P. R. 2001. Guidebook for Hydrogeomorphic (HGM)–based Assessment of Oregon Wetland and Riparian Sites: Statewide Classification and Profiles. Oregon Division of State Lands, Salem, OR.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe, 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service.
- Department of State Lands (DSL). 2015. Essential Salmonid Habitat Map for Benton County, Oregon. Salem, OR.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, MS.
- Gretag Macbeth. 2000. Munsell Soil Color Charts, 2000 Edition. Baltimore, MD.
- Hitchcock, C. L., A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington.
- National Oceanic and Atmospheric Administration. 2016. National Climate Data Center. Accessed online April-May 2016. Oregon City, OR US GHCND: USC00356334
- Seaber, P.R., Kapinos, F.P., and Knapp, G.L., 1987, Hydrologic Unit Maps: U.S. Geological Survey Water-Supply Paper 2294, 63 p
- Shapiro & Associates. 1999. Local Wetland Inventory for Oregon City. Accessed online April-May, 2016. http://docs.dsl.state.or.us/PublicReview/DocView.aspx?dbid=0&id=866079
- Soil Conservation Service. 1988. Hydric Soils of the State of Oregon. In cooperation with The National Technical Committee for Hydric Soils.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed December 2015 (Microsoft Access Database).
- Sumner JP, MJ Vepraskis, and RK Kolka. 2009. Methods to Evaluate Normal Rainfall for Short Term Wetland Hydrology Assessment. Wetlands. 29(3):1049-1062.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Army Corp of Engineers. 2005. Regulatory Guidance Letter 05-05: Guidance on Ordinary High Water Mark Identification.
- U.S. Army Corp of Engineers. 2013. State of Oregon-NWPL Final Draft Ratings.
- U.S. Department of Agriculture (USDA), 2007. Natural Resources Conservation Service (NRCS). Part 630 Hydrology National Engineering Handbook.
- USDA, NRCS. 2016. The PLANTS Database (http://plants.usda.gov, May 2016). National Plant Data Team, Greensboro, NC 27401-4901 USA.
- USDA. 2002. NRCS WETS Tables for Oregon City. Accessed online April-May 2016.





- U. S. Fish and Wildlife Service (USFWS). April, 2016. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands/
- U.S. Geological Service (USGS). 2011. Oregon 7.5 minute Quadrangles.



