Percheron Boardman, Morrow County, Oregon Wetland and Waters Delineation Report

Date:	May 2022
Prepared for:	Rowan Percheron, LLC 14559 Westlake Drive, Suite C Lake Oswego, OR 97035
Prepared by:	AKS Engineering & Forestry, LLC Margret Harburg, Natural Resource Specialist Sonya Templeton, Natural Resource Specialist 503.563.6151 templetons@aks-eng.com
Study Area:	Morrow County Assessor's Map Section 28 03N 24E, Portion of Tax Lot 100 Boardman, Oregon
AKS Job Number:	8858-04



Table of Contents

Introduction	2
Introduction A. Landscape Setting and Land Use	2
B. Site Alterations	3
C. Precipitation Data and Analysis	3
D. Methods	5
F. Description of All Wetlands and Other Non-Wetland Waters	5
Wetland A	
Upland	6
Non-Wetland Waters	7
Intermittent Water 1	
G. Deviation from NWI	8
H. Mapping Method	
I. Additional Information	
J. Summary of Results and Conclusions	8
K. Required Disclaimer	9
L. List of Preparers	
Literature Cited and Referenced	10

Tables

Table 1: Precipitation Data Prior to the October 14, 2021 Site Visit	4
Table 2: Precipitation Data Prior to the March 31, 2022 Site Visit	4

Appendices

Appendix A: Maps

Figure 1: USGS Vicinity Map

Figure 2: Clackamas County Assessor's Tax Maps

Figure 3: NRCS Soils Map

Figure 4: USFWS National Wetland Inventory (NWI) Map

Figure 5-5A: Wetland Delineation Map

Appendix B: DSL Wetland Delineation Concurrence Letter (WD2010-0023)

Appendix C: Google Earth Aerial Images

Appendix D: Precipitation Data

Appendix E: Wetland Determination Data Forms (Plots 1-18)

Appendix F: Representative Site Photos

Appendix G: Streamflow Duration Assessment Method (SDAM) Form

Introduction

This report was prepared by AKS Engineering and Forestry, LLC (AKS) in accordance with Oregon Administrative Rules (OAR) 141-090-0030 and OAR-141-090-0035 (1-17) and describes the results of a wetland and waters delineation conducted on a portion of Tax Lot 100 of Morrow County Assessor's Map Section 28 03N 24E which is located north of Tower Road and north of Carty Reservoir in Boardman, Morrow County, Oregon (Figures 1 and 2 in Appendix A; referred to as the study area). The study area is approximately 275 acres and is shown in Figures 1 and 2 in Appendix A.

The on-site boundary of one palustrine emergent/palustrine forested (PEM/PFO) wetland (referred to as Wetland A) was delineated by AKS in the study area. Additionally, one intermittent drainage (referred to as Intermittent Water 1) was delineated extending from a series of four culverts under Tower Road north to Wetland A. Wetland A and Intermittent Water 1 are likely jurisdictional to the Oregon Department of State Lands (DSL).

Previous state approved wetland and water delineations mapped in or adjacent to the study area were reviewed to identify information that may be helpful in making a wetland determination, per OAR 141-090-0035(f). A wetland delineation was conducted by Ecology and Environment, Inc. (E&E) in 2009 to the southwest of Tower Road. Upon the request of DSL in 2010, additional field surveys were conducted in 2012 and a 2013 Addendum was provided by E&E. The 2013 E&E Addendum received concurrence from DSL under WD2010-0023 on December 24, 2013 (Appendix B), which determined 15 wetlands and four waterways present. Under the E&E study, an intermittent portion of Sixmile Canyon Drainage was identified continuing off-site to the northeast under Tower Road within the study area.

A. Landscape Setting and Land Use

The site is located within the Umatilla Plateau ecoregion, LRR B Columbia/Snake River Plateau Region in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 (USACE, 2008). The study area consists of an undeveloped, shrub-steppe habitat consisting of rolling plains dominant in big sagebrush (*Artemisia tridentata, NOL*), bitterbrush (Purshia tridentata, NOL), green rabbitbrush (*Chrysothamnus viscidiflorus*, NOL), rubber rabbitbrush (*Ericameria nauseosa*, NOL), cheat grass (*Bromus tectorum*, NOL) and Russian Thistle (*Salsoa tragus*, FACU). A slightly lower elevational, transitional upland zone surrounding Wetland A (shown as the green area surrounding Wetland A and Intermittent Water 1 on aerial imagery) is dominated by burningbush (*Bassia scoparia*, FAC) and dead big sagebrush with lesser amounts of swainson pea (*Sphaerophysa salsula*, FACU), Amaranthus species (*Amaranthus spp.*, assumed FACU), lambsquarters (*Chenopodium species*, assumed FAC), prickly Russian thistle (*Salsola tragus*, FACU), catnip (*Nepeta cataria*, FACU), (*Onopordum acanthium*, NOL) and yellow star-thistle (*Centaurea solstitialis*, NOL).

Tower Road enters and exits the study area in the northwest corner and then parallels the study area's southern boundary. Land use surrounding the study area consists of agricultural and cultivated crop fields to the north and west, with undeveloped shrub-steppe plains to the east. The Carty Reservoir and Portland General Electric (PGE) associated generation station facilities are located approximately 5,000 feet to the south and southeast of the study area. The Boardman Naval Weapons Systems Training Facility is located approximately five miles to the east.

The study area is located within the Poverty Ridge-Sixmile Canyon watershed (ORWAP, 2022) and is characterized by open grassland plains and rolling hills. The study area is generally flat (slopes less than 5



percent) with undulating topography and an elevation of approximately 600 feet. Poverty Ridge boarders the study area to the east at approximately 650 feet in elevation (Figure 1, Appendix A) with a broad, gradual slope (slopes less than 30%) to the west towards the study area. Topography on the site generally slopes to the north, towards Sixmile Canyon and the Columbia River.

According to the Natural Resources Conservation Service (NRCS) Morrow County Area Soil Survey Map (Figure 3 in Appendix A), the following soil units are mapped within the study area:

- Koehler loamy fine sand, (Unit 26B) 2 to 5 percent slopes; Non-Hydric
- Koehler loamy fine sand, (Unit 26C) 5 to 12 percent slopes; Non-Hydric
- Royal silt loam, (Unit 53A) 0 to 3 percent slopes; Non-Hydric
- Sagehill fine sandy loam hummocky, (Unit 55B) 2 to 5 percent slopes; Non-Hydric
- Sagehill fine sandy loam hummocky, (Unit 55C) 5 to 12 percent slopes; Non-Hydric
- Taunton fine sandy loam, (Unit 58B) 2 to 5 percent slopes; Non-Hydric
- Taunton fine sandy loam, (Unit 58C) 5 to 12 percent slopes; Non-Hydric
- Quincy loamy fine sand, (Unit 40C) 2 to 12 percent slopes; Non-Hydric

B. Site Alterations

Historical aerial imagery was obtained from Google Earth dating from May 1994 until April 2021 and is included in Appendix C. The study area has remained relatively unchanged since 1994. Animal trails meander through the northern portion of the study area and are visible on aerial images. According to the April 2021 aerial image, potential inundation signatures were present within the vicinity of Wetland A delineated under this study and in an area just to the north, which was determined to be upland. To deduce the source of hydrology, past weather records were analyzed and human activities in the surrounding area were investigated. Precipitation prior to this event recorded no rainfall within six weeks of the April 2021 aerial imagery according to the AcGIS Boardman WETS Station. Coordination with Portland General Electric's Carty Generating Station Unit 1 determined no discharge from Carty Reservoir contributes to the flow regime of Intermittent Water 1. It is AKS' best professional judgement that inundation observed at the time of this aerial was an aberrant event from adjacent agricultural irrigation runoff.

Additionally, potential signatures of saturation are present in the northwest corner of the site starting in July 2001 until January 2021. Signatures are likely a result of irrigation from the adjacent agricultural crop circles to the north and west of the study area. No channel or drainage patterns were observed during AKS field investigations and this area was determined to be upland. There appears to have been no recent site alterations that would affect wetlands and waters on the site.

C. Precipitation Data and Analysis

Observed precipitation data were obtained from the National Oceanic and Atmospheric Administration's (NOAA) Applied Climate Information System (ACIS) Boardman, Oregon weather station. The closest Climate Analysis for Wetlands Tables (WETS) station to the project site is the Boardman station. The growing season (at 50 percent probability that the temperature is 28 degrees F or higher) is between April 2 and October 28, according to the WETS data. The October 14th, 2021 site visit was conducted within the later portion of the growing season and the March 31, 2022 site visit was conducted close to the beginning



of the WETS growing season and woody bud break was observed during the site visit—indicating the start of the growing season.

According to the Boardman weather station, the site received no rainfall the day of the October 14, 2021 site visit and 0.14 inches was received within the two weeks prior. Observed water year-to-date (starting October 1, 2021) was 0.14 inches. As depicted in Table 1 below, monthly observed precipitation was within normal range preceding the site visit according to the WETS data. However, the site visit was conducted following a hot and dry summer.

According to the Boardman weather station, no rainfall was received the day of the March 31, 2022 site visit and 0.05 inches of rainfall was received within the two weeks prior. According to the WETS data, monthly observed precipitation was wetter than normal preceding the site visit as depicted in Table 2 below. Observed water year-to-date (starting October 1, 2021) was 12.99 inches, which is 6.99 inches above normal. A reference site located several miles to the north of the study area was visited by AKS around the time of March 2022 site visit. Primary indicators of wetland hydrology were observed on the site as was used as a reference for wetland hydrology indicators within the study area.

Tables 1 and 2 show antecedent rainfall according for the WETS Boardman station for the three months prior to the October 2021 and March 2022 site visits (raw data included in Appendix D):

Prior Months	Observed Precipitation (Inches)	Average WETS Precipitation (Inches)	Than Than		Condition Dry, Wet, Normal	Condition Value (1=dry, 2=normal, 3=wet)	Month Weight	Multiply Previous Two Columns	
Sept. 2021	0.59	0.37	0.10	0.36	Wet	3	3	9	
Aug. 2021	0.02	0.27	0.07	0.24	Dry	1	2	2	
July 2021	0.00	0.18	0.00	0.17	Normal	2	1	2	
Sum								13	
								normal	
Rainfall of prior per	ainfall of prior period was: drier than normal (sum is 6-9), normal (sum is 10-14), wetter than normal (sum is 15-18)								

Table 1: Precipitation Data Prior to the October 14, 2021 Site Visit

Table 2: Precipitation Data Prior to the March 31, 2022 Site Visit

Prior Months	Observed Precipitation (Inches)	Average WETS Precipitation (Inches)	30% Cl Will H Less Than		Condition Dry, Wet, Normal	Condition Value (1=dry, 2=normal, 3=wet)	Month Weight	Multiply Previous Two Columns
March 2022	1.10	0.68	0.43	0.82	Wetter	3	3	9
Feb. 2022	0.56	0.88	0.48	1.06	Normal	2	2	4
Jan. 2022	0.96	1.20	0.74	1.46	Normal	2	1	2
Sum								
								wetter
Rainfall of prior per	Rainfall of prior period was: drier than normal (sum is 6-9), normal (sum is 10-14), wetter than normal (sum is 15-18							



D. Methods

Field work was conducted on October 14, 2021 by AKS Natural Resource Specialists Sonya Templeton and Margret Harburg to delineate potentially jurisdictional wetlands and waters within the study area. A follow up site visit was conducted on March 31, 2022 by AKS Natural Resource Specialists Sonya Templeton and Margret Harburg and Senior Wetland Scientist Stacey Reed, PWS to confirm the extent of wetland and water boundaries during the annual groundwater recharge and early portion of the growing season. During the field investigations, AKS staff traversed the entire study area to assess existing conditions. Since there were no hydric soils mapped on the site, data plots were documented in the lowest elevational areas as well as areas with a hydrophytic vegetation community.

Soils, vegetation, and hydrology indicators were recorded at 18 sample plots on standardized wetland determination data forms (Appendix E) to document site conditions. The extent of wetland and water boundaries are shown on attached Figure 5-5A. Representative ground level site photographs are included in Appendix F. References cited and literature used are listed at the end of this report.

The methodology used to determine the presence of wetlands followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West (Version 2.0)* (Wakeley et al. 2008). The *National Wetland Plant List 2018* (USACE 2018) was used to assign wetland indicator status for the appropriate region. The delineation of the Ordinary High Water Mark (OHWM) followed the Corps of *Engineers Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States Manual* (Lichvar et al. 2008). Indicators used to determine the onsite OHWM of Intermittent Water 1 included a change in vegetation species, a break in slope from the active floodplain to the low terrace, and a presence of the bed and bank.

The methodology used to determine stream flow duration of Intermittent Water 1 followed the US Environmental Protection Agency (EPA), *Region 10 (Document number EPA 910-R-11-002, Nov 2011)* Streamflow Duration Assessment Method (SDAM) for Oregon. The User Manual for a Beta Streamflow Druation Assessment Method for the Arid West of the United States (Version 1.0) (Mazor et al. 2021) was referenced as an aid in the determination of the flow regime. The Oregon SDAM Field Assessment form for Intermittent Water 1 is included in Appendix G.

F. Description of All Wetlands and Other Non-Wetland Waters

Wetland A

Wetland A is a PFO/PEM wetland located in the southeastern portion of the study area within a low topographic depression. An intermittent drainage flows north into the southern boundary of Wetland A. No channel was observed flowing through or continuing north of the wetland; therefore, Wetland A lacks a surface water outlet. The main source of hydrology consists of direct precipitation and secondarily from subsurface flow and surface runoff from the adjacent upland that collects in the wetland from irrigation or from a period of heavy rain. Wetland A has an inlet channel, seasonal inundation, and a collection basin area greater than 2 feet deep; therefore, belongs to Depressional Closed Nonpermanent (DCNP) HGM subclassification.

During both the October 14, 2021 and March 31, 2022 site visits, Wetland A was dominated by Russian olive trees (*Elaeagnus angustifolia*, FAC) in the PFO portions of the wetland and perennial Chairmaker's bulrush (*Schoenoplectus americanus*, OBL) with lesser amounts of common reed (*Phragmites australis*,



FACW), rough cocklebur (*Xanthium strumarium*, FAC) and twoscale saltbush (*Atriplex heterosperma*, FAC) in the PEM portions of the wetland. Slight differences in vegetation were observed between the fall and spring visits. During the October 14, 2021 site visit, some late blooming annual populations were observed such as rough cocklebur (*Panicum capillare*, FAC) that had finished their life cycle and were no longer present in the spring. During the March 31, 2022, site visit western goldentop (*Euthamia occidentalis*, FACW) was observed sprouting at Plot 15 that was not present during the fall visit. Common panic grass is characterized by a late blooming, annual lifecycle duration (NRCS, 2022).

Soils observed in the wetland were of low chroma (chroma of 2 or less) displaying distinct or prominent redoximorphic features meeting hydric soil indicator Redox Dark Surface (F6) or Sandy Redox (S5). Soils also displayed a depleted matrix meeting hydric soil indicator F3. No groundwater table or soil saturation was observed within the upper 12 inches of the soil surface at all wetland plots (Plots 6, 7, 9, 11, and 13) during both site visits; however, Plot 13 was saturated at 16 inches during the March 31, 2022 site visit. All wetland plots displayed primary indicators of hydrology including Non-riverine Water Marks (B1). Water marks on trees and shrubs within the wetland was observed at approximately 3 feet. All wetland plots were documented in the potential inundation signature visible on the April 2021 aerial.

The wetland boundary was defined based on an approximate 3 to 5-foot change in topography on average. The northern portion of the wetland was defined by an approximate 20-foot change in topography. There was also a change in the composition of the vegetation community (FAC to FACW) in the wetland to a non-hydrophytic community in the upland. The change in the vegetation community coincides with a change in the landform from a concave, lower elevation in the wetland to a convex, higher elevation in the adjacent upland. The adjacent upland area lacked hydric soils and hydrology indicators as documented at paired upland Plots 8, 10, 12, and 14.

Upland

The adjacent upland surrounding Wetland A is characterized by a low terrace situated approximately 3 to 5 feet higher in elevation on average that gives way to a higher elevation shrub steppe habitat in the surrounding landscape. The low terrace setting is depicted by the lighter green area shown on Google Earth aerials. During both the October 14, 2021 and March 31, 2022 site visits, the upland area adjacent to Wetland A as documented by paired upland Plots 8, 10, 12, and 14, was dominated by burningbush (FAC) and twoscale saltbush (FAC) with lesser amounts of swainson pea (FACU), Amaranthus species (FACU), lambsquarters (assumed FAC), prickly Russian thistle (FACU), catnip (FACU), Scotch cottonthistle (NOL) and yellow star-thistle (NOL). Slight differences in vegetation were observed between the fall and spring visits. During the October 14, 2021 site visit, there were some species observed in the upland area that had finished their life cycle by the spring visit such as: spider flower species (*Cleomella spp.*, NOL), clasping pepperwort (*Lepidium perfoliatum*, FACU), and prickly lettuce (*Lactuca serriola*, FACU). During the March 31, 2022, site visit there was additional tall tumblemustard (*Sisymbrium altissimum*, FACU) and bare ground. A few yellow fritillaries (*fritillaria pudica*, NOL) were observed blooming in the higher elevation upland area. All upland plots lacked hydric soils and indicators of wetland hydrology.

Plots 1 and 2 were documented in the potential inundation signature just north of Wetland A visible on the April 2021 aerial. There is an approximate 20 feet tall land bridge (with one Juniper species on top [*Juniperus spp.*, assumed FACU or drier]) separating the potential inundation signatures from one another (Photos D and H, Appendix F). The vegetation associated with Plots 1 and 2 were dominant in Scotch cottonthistle (NOL), and twoscale saltbrush (FAC). No channel or defined bed and bank was observed



north or south of this area. Plots 1 and 2 characterize a slightly low topographic area, however this area lacked evidence of recent surface water ponding and is not located within NRCS mapped hydric soils. Plots 1 and 2 both lacked hydric soils and indicators of wetland hydrology; therefore, this area was determined to be upland.

Plots 3 and 4 were documented near the northernmost boundary of the study area in the lowest elevations. Both plots were dominant in Russian thistle (FACU) and cheatgrass (NOL) and subdominant in tall tumblemustard (FACU). There were animal trails throughout the area (likely deer) that are visible on aerial photos. No channel or defined bed and bank were observed in the vicinity of Plots 3 and 4. Both plots lacked hydric soils and indicators of wetland hydrology and were therefore determined to be upland.

Plot 5 was taken in a low topographic location that was approximately 1.5 feet lower in elevation than the surrounding area. The plot was dominant in yellow star-thistle (NOL) and tumblemustard (FACU). Plot 5 lacked hydric soils and indicators of wetland hydrology and was therefore determined to be upland. No defined bed and bank or OHWM were observed. There was no defined channel observed connecting to Wetland A or to the north of the plot.

Plot 17 was documented in the northwestern corner of the study area to document the conditions on either side of a culvert crossing beneath Tower Road. The plot was taken in the lowest topographic area, approximately 15 feet from the culvert opening. No defined bed and bank or OHWM were observed on either side of Tower Road. Tumblemustard (FACU), big sagebrush (NOL), and bitterbrush (NOL) were observed in the surrounding vicinity. The plant community at Plot 17 was dominant in Chairmaker's bulrush (OBL) and western goldentop (FACW). These species require prolonged periods of saturated soils for germination. Both species appeared to be dead with no evidence of new growth during both the October 2021 and March 2022 site visits. A reference site that was visited by AKS located several miles to the north of the study area contained both species, in which new growth was observed within conditions that contained saturated soils. Plot 17 lacked hydric soils and primary indicators of wetland hydrology. Therefore, this area was determined to be upland.

Non-Wetland Waters

Intermittent Water 1

Intermittent Water 1 enters the study area from the southeast and connects to the southern boundary of Wetland A and does not continue north beyond the wetland. The channel bed was vegetated with Russian olive trees (FAC) and twoscale saltbush (FAC) with scattered Chairmaker's bulrush (OBL) and common reed (FACW) which were observed near the culvert openings under Tower Road. The slope of the stream reach is approximately 3 percent or less with undulating topography. Based on this data, the streamflow is considered intermittent. The EPA defines an intermittent stream as a channel that contains water for only part of the year, that may lack biological and hydrological characteristics, with greatly variable flow including stormwater runoff.

Intermittent Water 1 is situated in a shallow floodplain surrounded by a low terrace within a greater shrub steppe landscape. The channel is on average 50 feet wide. No surface water flow or recent evidence of surface water flow such as a salt crust, sediment deposit or soil cracking was present during both the October 2021 and March 2022 site visits. A shallow low-flow channel was observed that was approximately 1- to 3-feet-wide, with 4- to 6-inch-tall banks. The channel substrate was composed of a



loamy sand with duff from the Russian olive trees. Plots 15, 16, and 18 were taken in the channel to document the general conditions and all lacked hydric soil and indicators of wetland hydrology.

The riparian area within the low terrace was dominated by burningbush (FAC) and twoscale saltbush (FAC) with lesser amounts of swainson pea (FACU), Amaranthus species (FACU), lambsquarters (assumed FAC), prickly Russian thistle (FACU), catnip (FACU), Scotch cottonthistle (NOL) and yellow star-thistle (NOL).

G. Deviation from NWI

The study area is not mapped on an Oregon Department of State Lands (DSL) approved Local Wetland Inventory (LWI) map. The National Wetland inventory (NWI) map for this area indicates one freshwater emergent wetland in the vicinity of Wetland A delineated under this study (Figure 5 in Appendix A). AKS agrees with the general location of the documented wetland however, it has been mapped significantly larger under this study. Additionally, AKS mapped an intermittent stream flowing north from Tower Road to Wetland A.

H. Mapping Method

AKS mapped Plots 1 through 18, Wetland A boundary, and extent of Intermittent Water 1 using a handheld Trimble Geo 7X GPS unit with submeter accuracy. The wetland and waters delineation map are included as Figure 5 and 5A in Appendix A.

I. Additional Information

Wetland A delineated in the study area is a naturally occurring wetland and is likely to be determined jurisdictional to DSL. Intermittent Water 1 has an intermittent flow regime and is likely to be determined jurisdictional to DSL. According to the current DSL Essential Salmonid Habitat (ESH) map Intermittent Water 1 is not designated as an ESH stream within the study area. According to Pacific States Marine Fisheries Commission (PSMFC) StreamNet, Intermittent Water 1 within the study area is not mapped as a native fish-bearing stream.

Wetland A delineated in the study area is isolated and is likely to be determined non-jurisdictional to the USACE. Wetland A does not have a direct hydrologic, chemical, or biological connection to the Columbia River (a traditional navigable water), lacking a significant nexus. Therefore, Wetland A would likely not be considered a water of the United States under the Clean Water Act Section 404.

J. Summary of Results and Conclusions

Sufficient information and technical requirements to aid in making a jurisdictional determination have been provided in this report. Table 2 below provides a summary of this information, including: the onsite sizes of the features, hydrologic connections to other nearby waters, the hydrogeomorphic (HGM) wetland classification or flow regime, and our prediction of whether each feature would likely be determined jurisdictional by DSL.



Potentially Jurisdictional Feature	Latitude/ Longitude	Size	HGM/ Flow Regime	Connection to Other Waters/Wetlands	Predicted Jurisdiction
Wetland A	45.708042, - 119.815957	1.73 acres	PEM	None	DSL
Intermittent Water 1	45.705420, - 119.818117	0.88 acres	Intermittent	Wetland A	DSL

Table 2: Summary of Study Results and Conclusions

K. Required Disclaimer

This report documents the investigation, best professional judgment, and conclusions of the investigator. It is correct and complete to the best of our 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 by the Oregon Department of State Lands in accordance with Oregon Administrative Rules (OAR) 141-090-0005 through 141-090-0055.

L. List of Preparers

Margret Harburg Natural Resource Specialist Field Work and Report Preparation

Sonya Templetu

Sonya Templeton Natural Resource Specialist Fieldwork and Report QA/QC



Literature Cited and Referenced

- Adams, P.R. 2001. Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites: Statewide Classification and Profiles. Salem (OR): Oregon Division of State Lands. Available at: http://www.oregon.gov/dsl/WW/Documents/hydro_guide_class.pdf. [Accessed April 2022].
- Environmental Laboratory. 1987. Technical Report Y-87-1. In: *Corps of Engineers Wetlands Delineation Manual*. Vicksburg (MS): US Army Engineer Waterways Experiment Station. Available at: https://www.sac.usace.army.mil/Portals/43/docs/regulatory/1987_wetland_delineatio n_manual_reg.pdf. [Accessed April 2022].
- Hitchcock, C.L., and A. Cronquist. 1973. *Flora of the Pacific Northwest*. Seattle (WA): University of Washington Press. [Accessed April 2022].
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. Available at: http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html. [Accessed April 2022].
- National Oceanic and Atmospheric Administration (NOAA). 2021. ACIS, Boardman, OR. Available at: http://agacis.rcc-acis.org/?fips=41005. [Accessed April 2022].
- Natural Resources Conservation Service (NRCS). 2006. *Hydric Soils List: Morrow County, Oregon*. Washington (DC): US Department of Agriculture. [Accessed April 2022].
- Natural Resources Conservation Service (NRCS). 2014a. *Official soil series descriptions*. Washington (DC): US Department of Agriculture. Available at: http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/soils/home/?cid=nrcs142p2_0535 87. [Accessed April 2022].
- Natural Resources Conservation Service (NRCS). 2014b. *Web soil survey*. Washington (DC): US Department of Agriculture. Available at: http://websoilsurvey.nrcs.usda.gov/app/. [Accessed April 2022].
- Oregon Department of State Lands (DSL). 2014. Administrative Rules for Wetland Delineation Report Requirements. Salem (OR): Department of State Lands. Available at: https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=355. [Accessed April 2022].
- Oregon Department of State Lands (DSL). 2022. ORWAP and SFAM Map Viewer. Salem (OR): Department of State Lands. Available at: https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=orwap_sfam [Accessed April 2022].
- Oregon Map. 2019. Morrow County Assessor's Maps 3N 24E Oregon: State of Oregon. Available at: http://www.ormap.net/. [Accessed April 2022].
- PSMFC. *StreamNet Mapper*. Spokane (WA): Pacific States Marine Fisheries Commission. Available at: https://www.streamnet.org/data/interactive-maps-and-gis-data/ [Accessed April 2022].

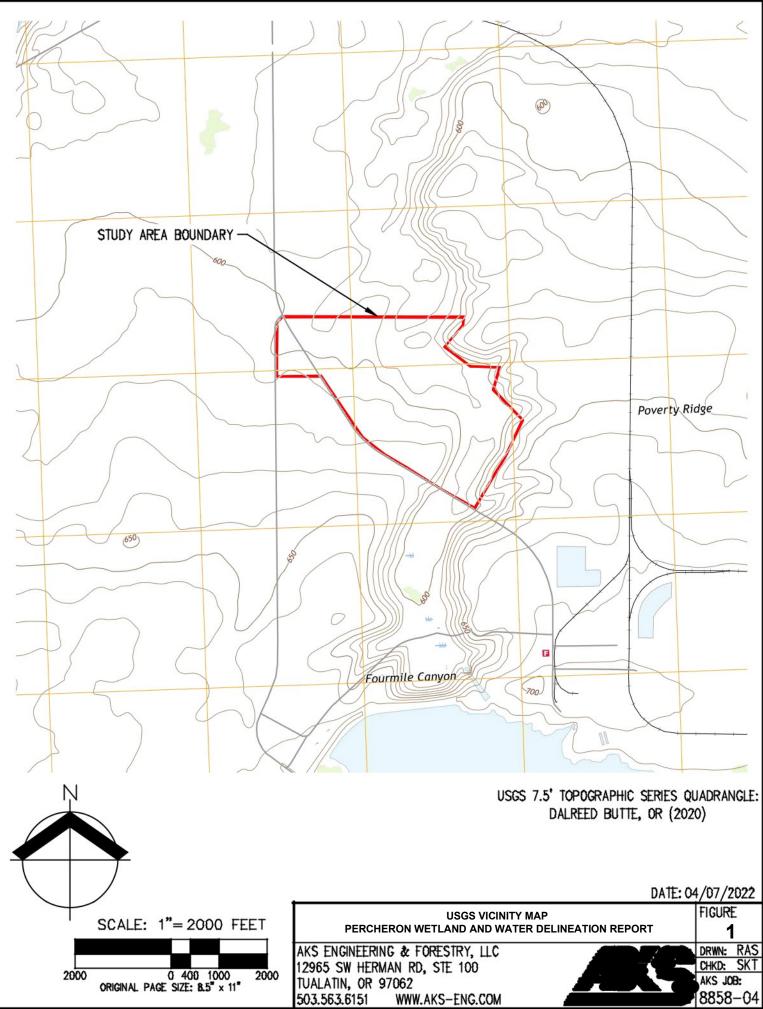


- Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and W.D. Broderson, eds. 2002. Field Book for Describing and Sampling Soils (Version 2.0). Lincoln (NE): US Department of Agriculture Natural Resources Conservation Service, National Soil Survey Center. [Accessed April 2022].
- Vasilas, L.M., G.W. Hurt, and C.V. Noble, eds. 2010. Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils (Version 7.0). Washington (DC): US Department of Agriculture Natural Resources Conservation Service. Available at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046970.pdf. [Accessed April 2022].
- US Army Corps of Engineers (USACE). 2018. *National Wetland Plant List, version 3.4*. Available at: http://wetland-plants.usace.army.mil/. [Accessed April 2022].
- Wakeley, J.S., R.W. Lichvar, and C.V. Noble, eds. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West (Version 2.0). ERDC/EL TR-10-3. Vicksburg (MS): US Army Engineer Research and Development Center, US Army Corps of Engineers. [Accessed April 2022].
- X-Rite. 2000. Year 2000 revised washable edition, Munsell soil color charts. Grand Rapids (MI): X-Rite. [Accessed April 2022].
- Portland General Electric Company (PGE). 2020. *Request for Amendment No. 2 to the Site Certificate for the Carty Generating Station*. Available at: https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2020-10-02-CGS-AMD2-Complete.pdf. [Accessed April 2022

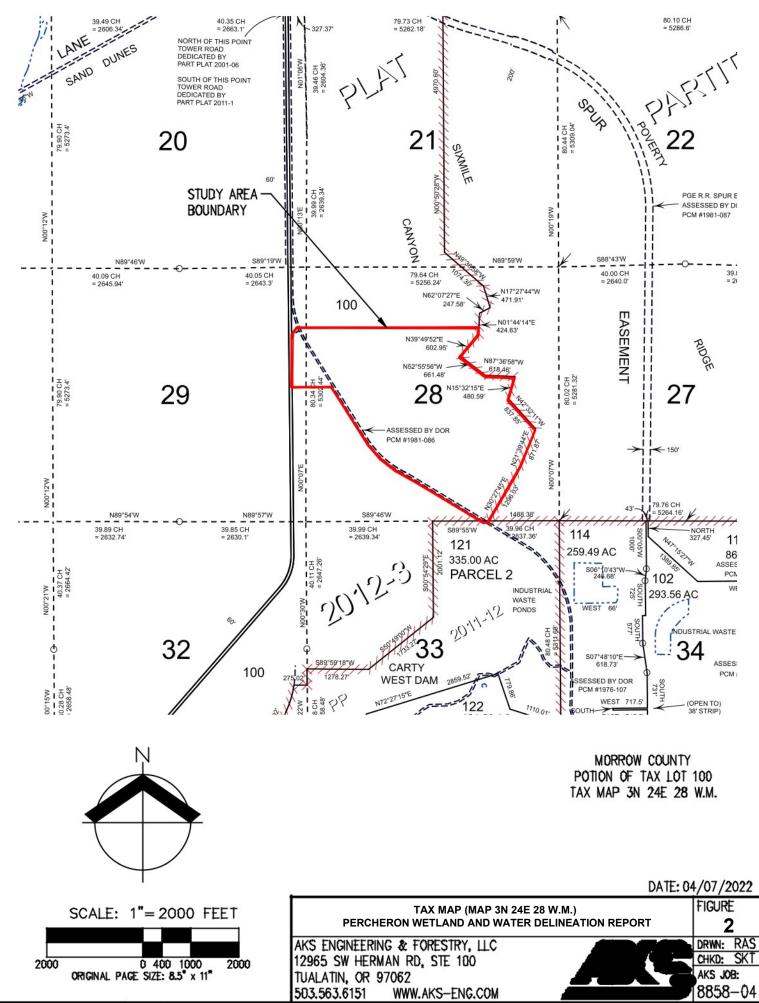




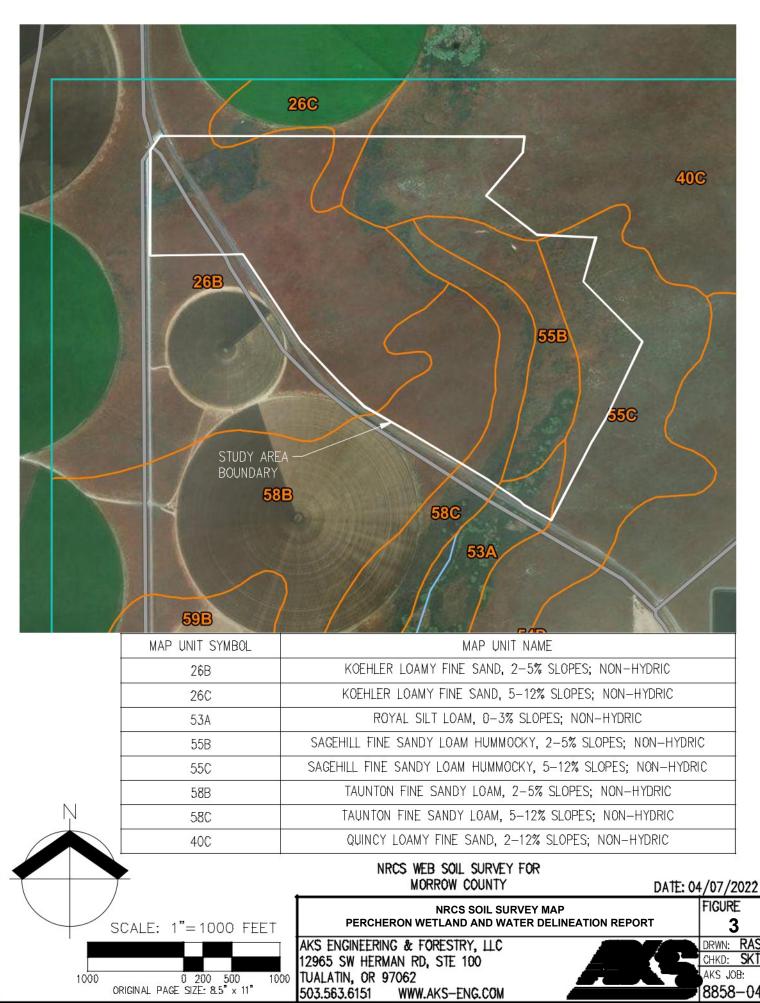
Appendix A: Maps



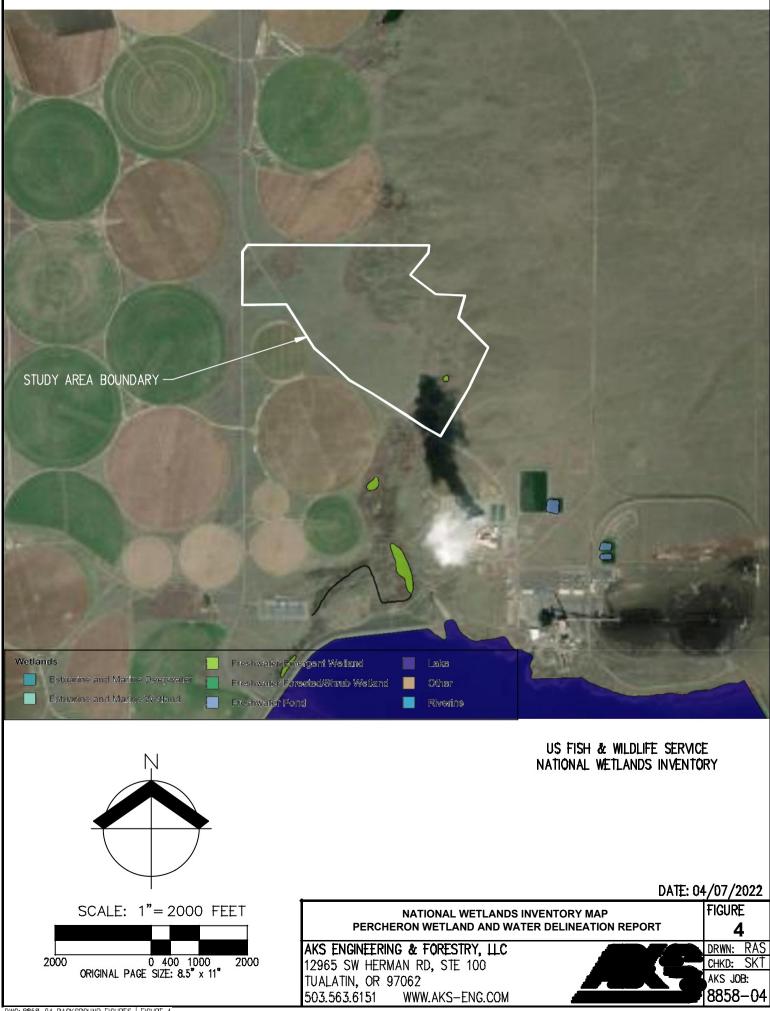
DWG: 8858-04 BACKGROUND FIGURES | FIGURE 1



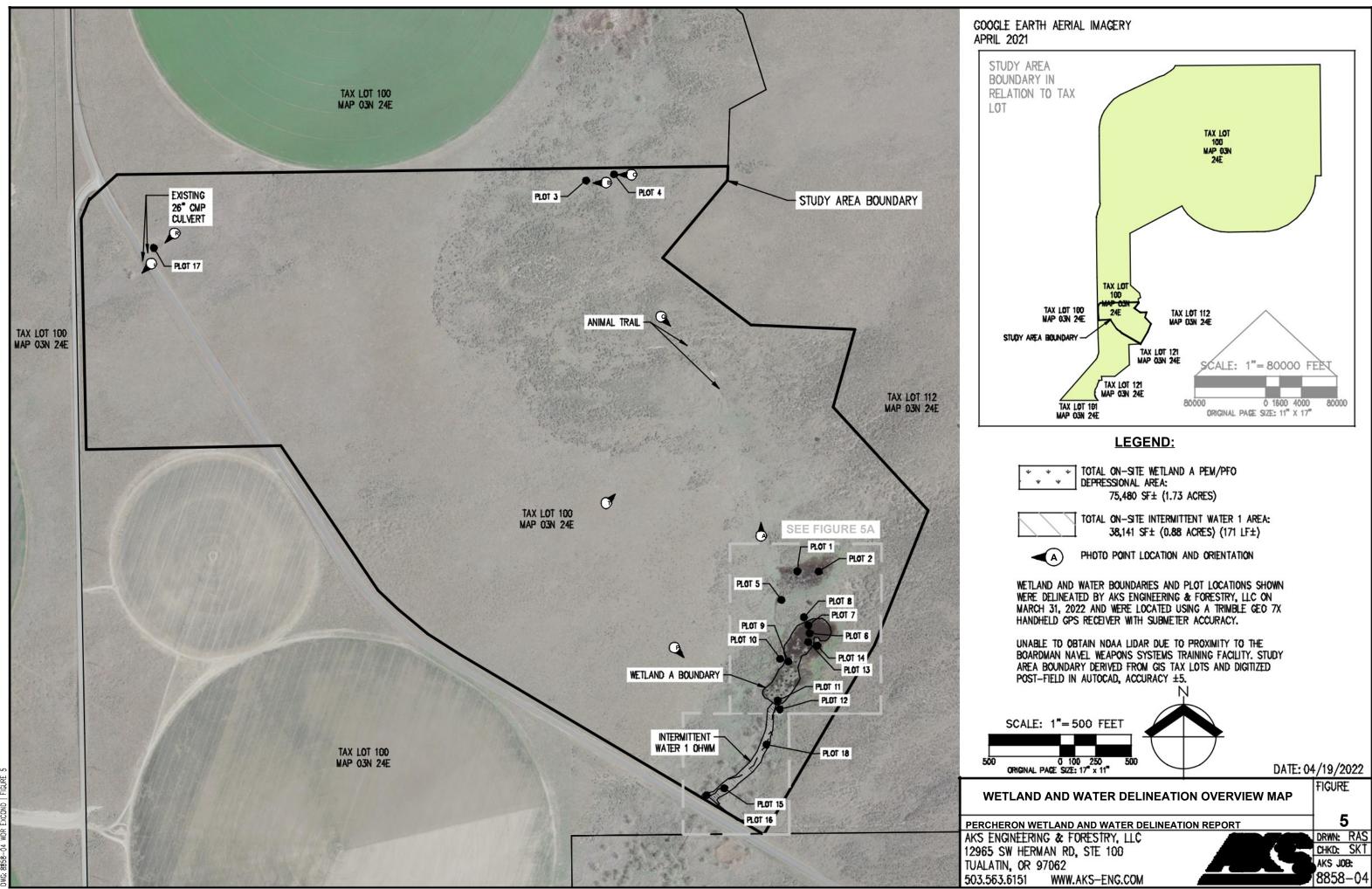
DWG: 8858-04 BACKGROUND FIGURES | FIGURE 2

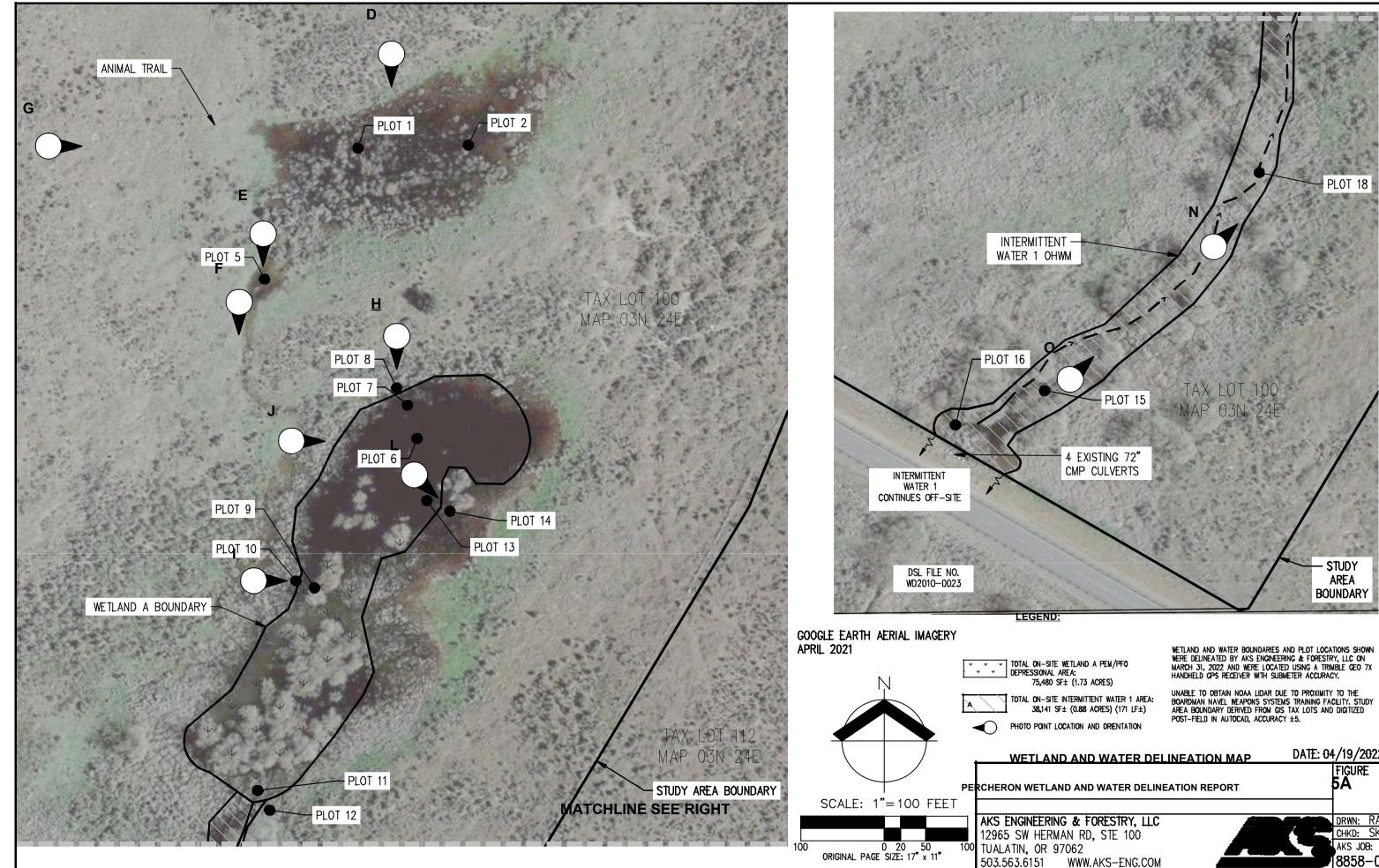


DWG: 8858-04 BACKGROUND FIGURES | FIGURE 3



DWG: 8858-04 BACKGROUND FIGURES | FIGURE 4





MATCHLINE SEE LEFT

WETLAND AND WATER DELINEATION MAP DATE: 0	4/19/2	022
ON WETLAND AND WATER DELINEATION REPORT	FIGUR I 5 A	
NGINEERING & FORESTRY, LLC	DRWN:	RAS
SW HERMAN RD, STE 100	CHKD:	SKT
TIN, OR 97062	AKS JO	B:
53.6151 WWW.AKS-ENG.COM	8858	-04



Appendix B: DSL Wetland Delineation Concurrence Letter (WD2010-0023)





December 24, 2013

Portland General Electric Company Attn: Mike Livingston & Lenna Cope 121 SW Salmon Street, 3WTC-BR05 Portland, Oregon 97204

Re: Wetland Delineation Report for Morrow and Gilliam Counties; T02N R22E, R23E, & R24E; T03N R21E, 22E, 23E & 24E; portions of multiple Tax Lots – see attached Table F, revised; WD #2010-0023

Dear Mr. Livingston & Ms. Cope:

The Department of State Lands has reviewed the wetland delineation report prepared by Ecology and Environment, Inc. for the study area referenced above. Please see the attached maps and revised Table F for the study area locations. Based upon the information presented in the report, and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in revised Figures 5.1 – 5.5 & corresponding detail maps (11 total in set), attached. Please replace all copies of the preliminary wetland maps with these final Departmentapproved maps. Within the study area, 15 wetlands (totaling approximately 7.279 acres) and four waterways were identified. The wetlands, Willow Creek, stream SS-002-001 and a portion of Sixmile Canyon Drainage are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in the wetland or below the ordinary high water line (OHWL) of a waterway (or the 2 year recurrence interval flood elevation if OHWL cannot be determined).

However, within the study area Eightmile Canyon Drainage and a portion of Sixmile Drainage were determined to have ephemeral flow and therefore, are not state jurisdictional. Please see the revised Table F and maps for details.

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act at the time that a permit application is submitted. We recommend that you attach a copy of this concurrence letter to both copies of any subsequent joint permit application to speed application review.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you

Department of State Lands

775 Summer Street NE, Suite 100 Salem, OR 97301-1279 (503) 986-5200 FAX (503) 378-4844 www.oregonstatelands.us

State Land Board

John A. Kitzhaber, MD Governor

> Kate Brown Secretary of State

> > Ted Wheeler State Treasurer

work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter, unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity, or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. Please phone me at 503-986-5297 if you have any questions.

Sincerely,

ra Brown

Wetland Specialist

Enclosures

Approved by Kathy Verble, CPSS

Acting Wetlands Program Manager

ec: Clare Kenny, Ecology and Environment, Inc. Morrow County Planning Department Gilliam County Planning Department Shelly Lynch, Corps of Engineers LaGrande office Heidi Hartman, DSL Bend office Sue Oliver & Duane Kilsdonk, OR Department of Energy, EFSC DUANE KILSDONK SUE OLIVER .

ODDE COMPLIANCE OFFICER

61

11

Duane, Kilsdonk@state.or.us Sue. Oliver@state.or.us

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

This form must be included with any wetland delineation report submitted to the Department of State Lands for review and approval. A wetland delineation report submitted is not "complete" unless the fully completed and signed report cover form and the required fee are submitted. <u>Attach the form to the front of an unbound report and submit to</u>: Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279

Mail a copy of the completed form with payment of the required report review fee to: Oregon Department of State Lands, P.O. Box 4395, Unit 18, Portland, OR 97208-4395.

For new credit card payment option, see DSL web site.

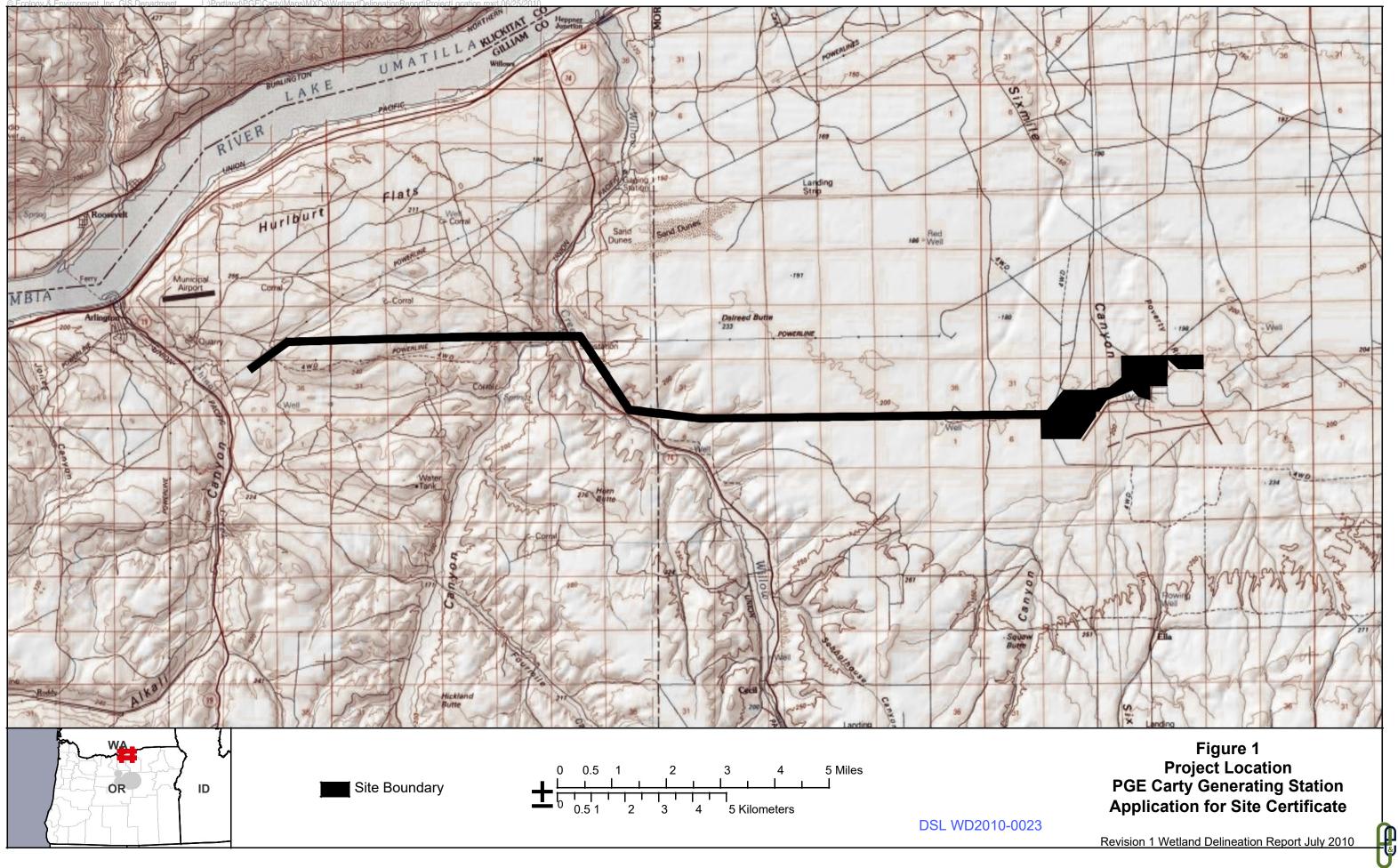
11

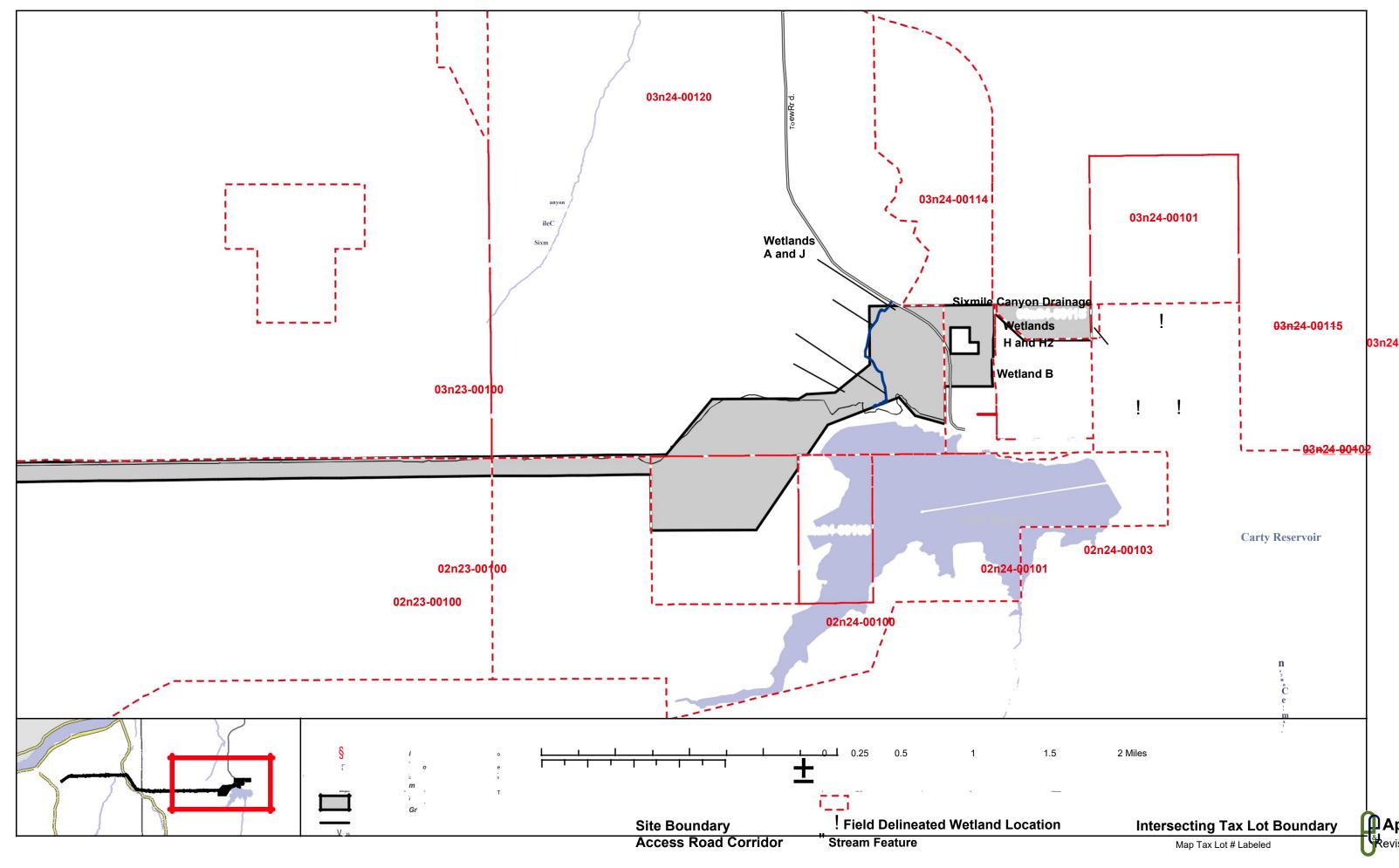
Applicant Owner Name, Firm and Address:						
Portland General Electric Company 121 SW Salmon Street, 3WTC-BR05	Mobile phone # (optional) FAX # 503-464-8527					
Portland, OR 97204	E-mail: ray.hendricks@pgn.com					
Authorized Legal Agent, Name and Address:	Business phone # 503-464-8127					
Mike Livingston	FAX # 503-464-2863					
121 SW Salmon St	Mobile phone # 503-849-3299					
Portland, OR 97204	E-mail: mike.livingston@pgn.com					
Lenaa. Cope @ Pgn. com Environmenta	ity to allow access to the property, I authorize the Department to access					
the property for the purpose of confirming the information in the	report, after prior notification to the primary contact. Signature:					
Date: 2/15/2010 Special instructions regarding site acce	iss:					
Project and Site Information (for latitude & for	ngitude, use centroid of site or start & end points of linear project)					
Project Name: Carty Generating Station	Latitude: 45 41'59.937"N Longitude: 119 48' 49.39" W					
Proposed Use: Combined-cycle natural gas power generating facility and associated 18-mile transmission line	Tax Map # Attached table lists all tax map numbers for the project. Table Frevised					
Project Street Address (or other descriptive location):	Township Range Section QQ					
Near the existing Boardman Plant - accessed from I-	Tax Lot (s) Attached table lists tax lots.					
84 and Tower Road	Waterway: River Mile:					
City: near Boardman County: Morrow/Gilliam						
COULTY INVESTIGATION COULTY INVESTIGATION	NWI Quad(s): Arlington, Horn Butte, Dalreed Butte, Ella					
Wetland Del Wetland Consultant Name, Firm and Address: Lucas C. Meek CURE KENNY ×4629	NWI Quad(s): Arlington, Horn Butte, Dalreed Butte, Ella Ineation Information Phone # 503/248-5600 × 4608 7130-4 Mobile phone #					
Wetland Dell Wetland Consultant Name, Firm and Address:	Ineation Information Phone # 503/248-5600 × 4608 7130^{-4} Mobile phone # FAX # 503/248-5577 $Cull ph^{\pm}$ E-mail: Imeek@ene.com d report are true and correct to the best of my knowledge.					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature:	Ineation Information Phone # 503/248-5600 \times 4608 $-7130-4$ Mobile phone # FAX # 503/248-5577 Cc 11 ph # E-mail: Imeek@ene.com d report are true and correct to the best of my knowledge.					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature:	Ineation Information Phone # 503/248-5600 × 4608 $7130-4$ Mobile phone # FAX # 503/248-5577 Cull ph # E-mail: Imeek@ene.com ad report are true and correct to the best of my knowledge. $360-907-6$ Date: $2/15/10$ Consultant Applicant/Owner Authorized Agent 7.279					
Wetland Consultant Name, Firm and Address: Lucas C. Meek Luces C. Meek Cology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: Wetland/Waters Present? Yes □ No Study Area	Ineation Information Phone # 503/248-5600 × 4608 $7130-4$ Mobile phone # FAX # 503/248-5577 Cull ph # E-mail: Imeek@ene.com ad report are true and correct to the best of my knowledge. $360-907-6$ Date: $2/15/10$ Consultant Applicant/Owner Authorized Agent 7.279					
Wetland Consultant Name, Firm and Address: Lucas C. Meek CAPE KENNY ×4624 Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: Primary Contact for report review and site access is Wetland/Waters Present? Wetland/Waters Present? Check Box Below if Applicable:	Ineation Information Phone # 503/248-5600 × 4608 7130-4 Mobile phone # FAX # 503/248-5577 FAX # 503/248-5577 Cell ph # E-mail: Imeek@ene.com 360-907-4 Id report are true and correct to the best of my knowledge. Date: Date: 2/15/10 Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres 7 Total Wetland Acreage: 4 acres					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Lucas C. Meek Lucas C. Meek Colspan="2">Colspan="2" Colspan="2">Colspan="2" Colspan="2" Colspan	Ineation Information Phone # 503/248-5600 × 4608 7130-4 Mobile phone # FAX # 503/248-5577 Cull ph # FAX # 503/248-5577 Cull ph # E-mail: Imeek@ene.com a report are true and correct to the best of my knowledge. 360-907- Date: 2/15/10 Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4 acres Fees: See Table Freesed					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Lucas C. Meek Cology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: PrImary Contact for report review and site access is Wetland/Waters Present? Yes No Study Area Check Box Below if Applicable: In R-F permit application submitted Image: Consultant site	Ineation Information Phone # 503/248-5600 × 4608 7130-4 Mobile phone # FAX # 503/248-5577 FAX # 503/248-5577 Cull ph # E-mail: Imeek@ens.com 360-907-4 Id report are true and correct to the best of my knowledge. 360-907-4 Date: 2/15/10 Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4=acres Fees: See Table Freused Id Fee payment submitted \$ 363.00 Id Fee (\$100) for resubmittal of rejected report					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Lucas C. Meek Cology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: Wetland/Waters Present? Yes I No Study Area Check Box Below if Applicable: Image: Image Contact Ior report review and site access is Image Contact Ior report review and site access is Image Contact Ior report review and site access Image Contact Ior report review and site Image Contact Ior Image C	Ineation Information Phone # 503/248-5600 × 4608 7130-4 Mobile phone # FAX # 503/248-5577 FAX # 503/248-5577 Cull ph # E-mail: Imeek@ens.com 360-907-4 Id report are true and correct to the best of my knowledge. 360-907-4 Date: 2/15/10 Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4=acres Fees: See Table Freused Id Fee payment submitted \$ 363.00 Id Fee (\$100) for resubmittal of rejected report					
Wetland Consultant Name, Firm and Address: Lucas C. Meek Lucas C. Meek Cology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: Primary Contact for report review and site access is Wetland/Waters Present? Yes No Study Area Check Box Below if Applicable: In R-F permit application submitted Initigation bank site Wetland restoration/enhancement project (not mitigation Initigation bank site Industrial Land Certification Program Site Other Information:	Ineation Information Phone # 503/248-5600 × 4608 7130-4 Mobile phone # FAX # 503/248-5577 FAX # 503/248-5577 Cull ph # E-mail: Imeek@ene.com 360-907-10 Id report are true and correct to the best of my knowledge. 360-907-10 Date: 2/15/10 Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4-acres Fees: See Table Frevised Image: See Tabl					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Lucas C. Meek Lince Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: Image: Signature: Primary Contact for report review and site access is Wetland/Waters Present? Yes No Study Area Check Box Below if Applicable: Image: R-F permit application submitted Image: Site Site Image: Wetland restoration/enhancement project (not mitigation Image: Site Other Information: Has previous delineation/application been made on parcel Image: Site Image: Site	Ineation Information Phone # 503/248-5600 × 4608 7130-4 Mobile phone # FAX # 503/248-5577 FAX # 503/248-5577 Cull ph # E-mail: Imeek@ene.com 360-907-10 Id report are true and correct to the best of my knowledge. 360-907-10 Date: 2/15/10 Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4-acres Fees: See Table Frevised Image: See Tabl					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Consultant Name, Firm and Address: Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: Image: Consultant Signature: Primary Contact for report review and site access is Image: Consultant Signature: Wetland/Waters Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Consultant Signature Image: Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Consultant Signature Image: Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Consultant Signature Image: Present? Wetland restoration/enhancement project (not mitigation Image: Consultant Signature Image: Present Signature Image: Consultant Signature Image: Consultant Signature Image: Consultant Signature <	Ineation Information Phone # 503/248-5600 × 460% Phone # 503/248-5600 × 460% Mobile phone # FAX # 503/248-5577 Cull ph # Farmail: Imeek@ens.com Mobile phone # Farmail: Imeek@ens.com Output Date: Q/15/10 Consultant [] Applicant/Owner [] Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4 acres Fees: Sec Table F revised M Fee payment submitted \$ 363.00 I Fee (\$100) for resubmittal of rejected report N Y N If known, previous DSL # Unknown					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Consultant Name, Firm and Address: Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attache Consultant Signature: Image: Consultant Signature: Primary Contact for report review and site access is Image: Consultant Signature: Wetland/Waters Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Consultant Signature Image: Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Consultant Signature Image: Present? Yes No Study Area Check Box Below if Applicable: Image: Consultant Signature Image: Consultant Signature Image: Present? Wetland restoration/enhancement project (not mitigation Image: Consultant Signature Image: Present Signature Image: Consultant Signature Image: Consultant Signature Image: Consultant Signature <	Ineation Information Phone # 503/248-5600 × 460% Mobile phone # FAX # 503/248-5577 E-mail: Imeek@ene.com ad report are true and correct to the best of my knowledge. Date: $2/15/10$ Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4=acres Fees: See Table Freused See Fees: See Table Freused Fee payment submitted \$ 363.00 Fee (\$100) for resubmittal of rejected report Name of Payor: Eric White, E&E Y N Y N Y N Y N Y N Y N No LWIT Available					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Consultant Y 4624 Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attacher Consultant Signature: Image: Consultant Signature: PrImary Contact for report review and site access is Image: Consultant Signature: Wetland/Waters Present? Yes Wetland/Waters Present? Yes Check Box Below if Applicable: Study Area Image: Consultant site Study Area Wetland restoration/enhancement project (not mitigation Industrial Land Certification Program Site Other Information: Has previous delineation/application been made on parcel Does LWI, if any, show wetland or waters on parcel? For Of DSL Reviewer: Image: Consultant of the state	Ineation Information Phone # 503/248-5600 × 4608 Mobile phone # FAX # 503/248-5577 Cull ph # E-mail: Imeek@ene.com a report are true and correct to the best of my knowledge. Date: $2/15/10$ Consultant Applicant/Owner Authorized Agent 7.279 a size: 2,400 acres Total Wetland Acreage: 4 acres Fees: See Table Frensed Image: See Table Frensed Image: Fee payment submitted \$ 363.00 Image: Fee (\$100) for resubmittal of rejected report Image: Name of Payor: Image: Image: Imam					
Wetland Dell Wetland Consultant Name, Firm and Address: Lucas C. Meek Consultant Y 4624 Ecology and Environment, Inc. 333 SW Fifth Ave, Suite 600, Portland, OR 97204 The information and conclusions on this form and in the attacher Consultant Signature: Image: Consultant Signature: PrImary Contact for report review and site access is Image: Consultant Signature: Wetland/Waters Present? Yes Wetland/Waters Present? Yes Check Box Below if Applicable: Study Area Image: Consultant size Image: Consultant Size (not mitigation submitted) Image: Methand restoration/enhancement project (not mitigation of the Information: Image: Consultant Certification Program Site Other Information: Has previous delineation/application been made on parcel Does LWI, if any, show wetland or waters on parcel? For Of DSL Reviewer: Image: Consultant of the parcel state	Ineation Information Phone # 503/248-5600 × 4608 7130^{-4} Mobile phone # FAX # 503/248-5577 $Cull ph # FAX # 503/248-5577 Cull ph # 360^{-}907^{-} Image: Provide the provide the point are true and correct to the best of my knowledge. 360^{-}907^{-} Image: Date: Provide the point are true and correct to the best of my knowledge. 360^{-}907^{-} Image: Date: Provide the point are true and correct to the best of my knowledge. 360^{-}907^{-} Image: Date: Provide the point are true and correct to the best of my knowledge. 360^{-}907^{-} Image: Date: Provide the point of the point are true and correct to the best of my knowledge. 7130^{-}4^{-} Image: Date: Provide the point of the p$					

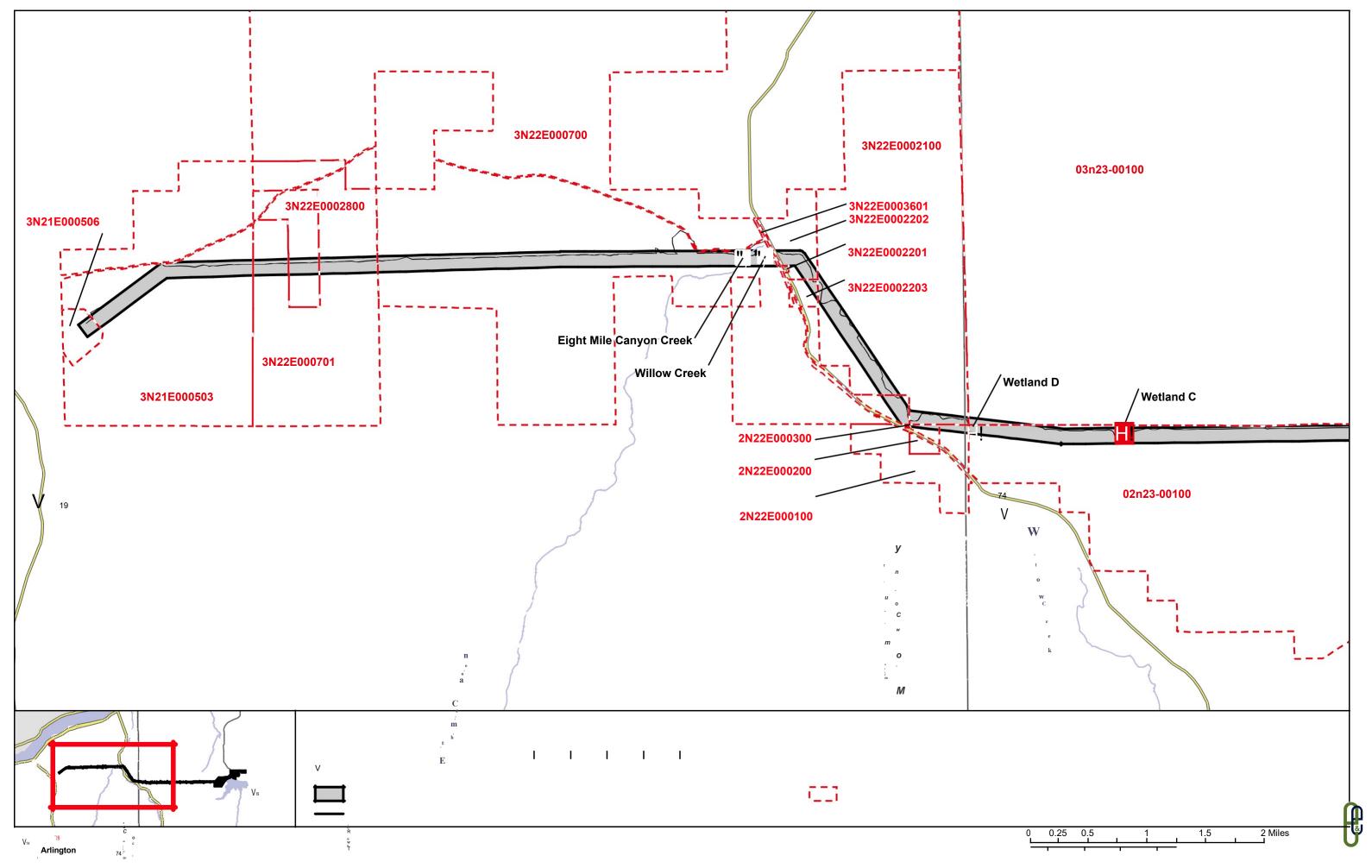
Form Effective January 1, 2008

Table F: Tax Lot and Figure Number Guide for Delineated Features - revised

COUNTY	MAP NUMBER	TAX LOT	2013 ADDENDUM FIGURES	FINAL FIGURES	FEATURE ID	TOTAL ACRES	FINAL DSL DETERMI-NATION
	03N24E	102			(None)		
	03N24E	115			(None)		
MORROW	03N24E	114			(None)		
	02N24E	101			(None)		
	03N24E	101			(None)		
MORROW	02N24E	103			(None)		
			S6, 11	5.3, 5.3.1	Wetland C	0.9	Yes
			S7, S12	5.3, 5.3.2	Wetland D	0.2	Yes
			S7, S10	5.3, 5.3.1	WW-002-009	0.1	Yes
MORROW	02N23E	100	S7, S10	5.3, 5.3.1	WW-002-010	0.6	Yes
			S7, S10	5.3, 5.3.1	WW-002-011	0.3	Yes
			S7, S11	5.3, 5.3.1	WW-002-012	0.7	Yes
			S6	5.3, 5.3.1	SS-002-001	n/a	Yes
			S1, S2, S10	5.1, 5.1.1	Wetland A	0.8	Yes
			S5, S11	5.1, 5.1.3	Wetland B	2.2	Yes
			S1, S2	5.1, 5.1.1	Wetland J	0.01	Yes
			S4, S12	5.1, 5.1.2	Wetland H-1	0.85	Yes
		120	S4, S12	5.1, 5.1.2	Wetland H-2	0.01	Yes
MORROW	03N24E		S4, S12	5.1, 5.1.2	WW-002-001	0.005	Yes
			S1, S2, S11	5.1, 5.1.1	WW-002-002	0.3	Yes
			S1, S2, S10	5.1, 5.1.1	WW-002-007	0.3	Yes
			S4, S11	5.1, 5.1.2	WW-004-001	0.004	Yes
			S1, S2, S3, S4	5.1, 5.1.1,	Sixmile Canyon		Yes, Figure 5.1.1
				5.1.2	Drainage	n/a	No, Fig. 5.1.2, ephemeral
GILLIAM	03N22E	2100			(None)		
GILLIAM	03N21E	506			(None)		
			S8	5.4, 5.4.1	Willow Creek	n/a	Yes
GILLIAM	03N22E	700	S8	5.4, 5.4.1	Eightmile Canyon	n/a	No, ephemeral
					Drainage	II/a	
GILLIAM	03N22E	701			(None)		
GILLIAM	03N22E	2800			(None)		
GILLIAM	03N21E	503			(None)		
GILLIAM	02N22E	100	S7, S12	5.3, 5.3.2	Wetland D	see above	Yes
GILLIAM	03N23E	100	S7, S12	5.3, 5.3.2	Wetland D	nd D see above Yes	
	02N22E	200			(None)		
	03N22E	2202			(None)		
GILLIAM	03N22E	2201			(None)		
	03N22E	3601			(None)		
	02N22E	300			(None)		
	03N22E	2203			(None)		





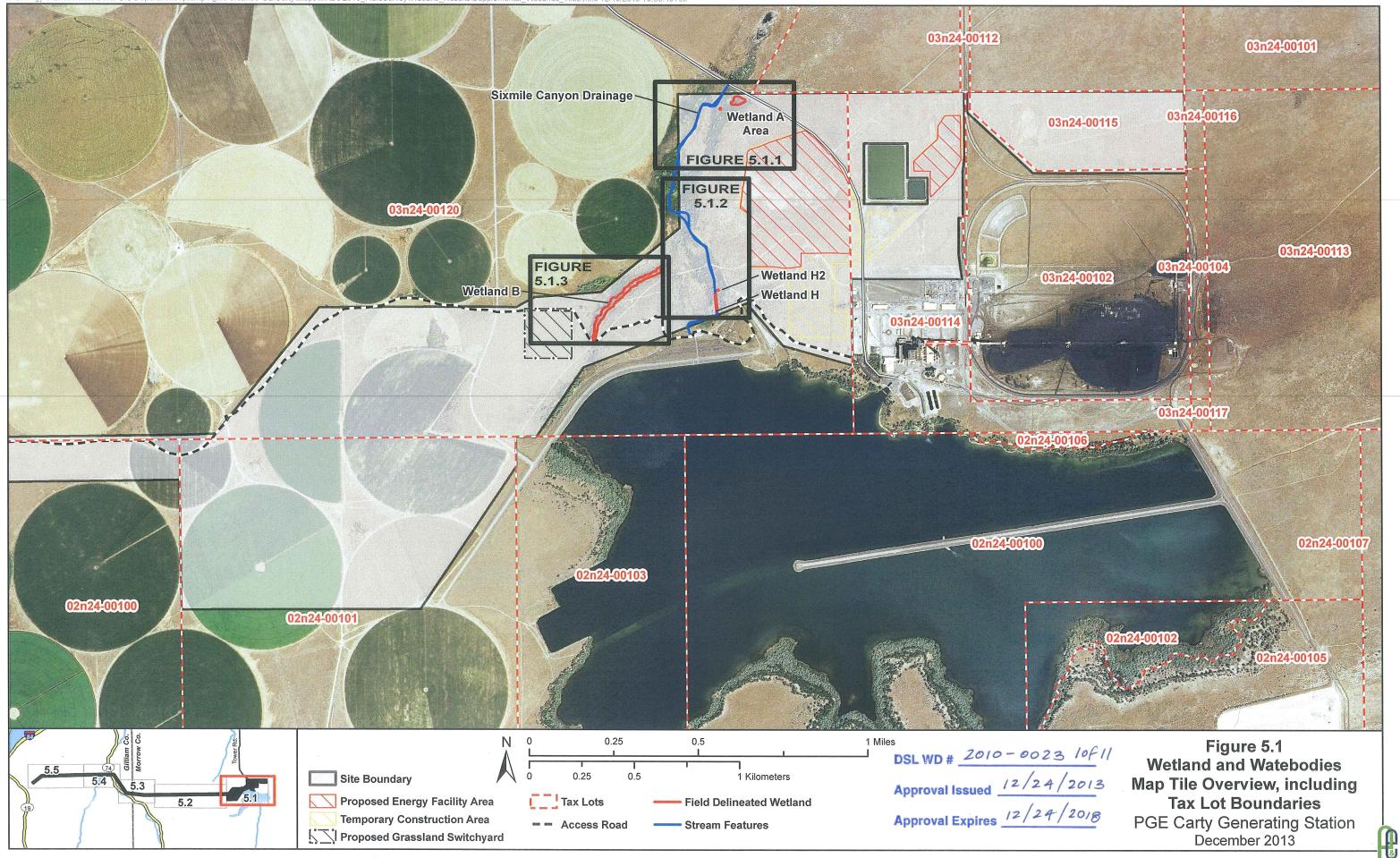


Site Boundary Access Road Corridor

Intersecting Tax Lot Boundary

Map Tax Lot # Labeled

© Ecology & Environment, Inc. GIS Department \\prtbhp1\gis\Portland\PGE\Carty\Maps\MXDs\2013_FieldSurvey\\Vetland_Results\Supplemental_Wetlands_Tiles.mxd 12/19/2013 10:38:15 AM

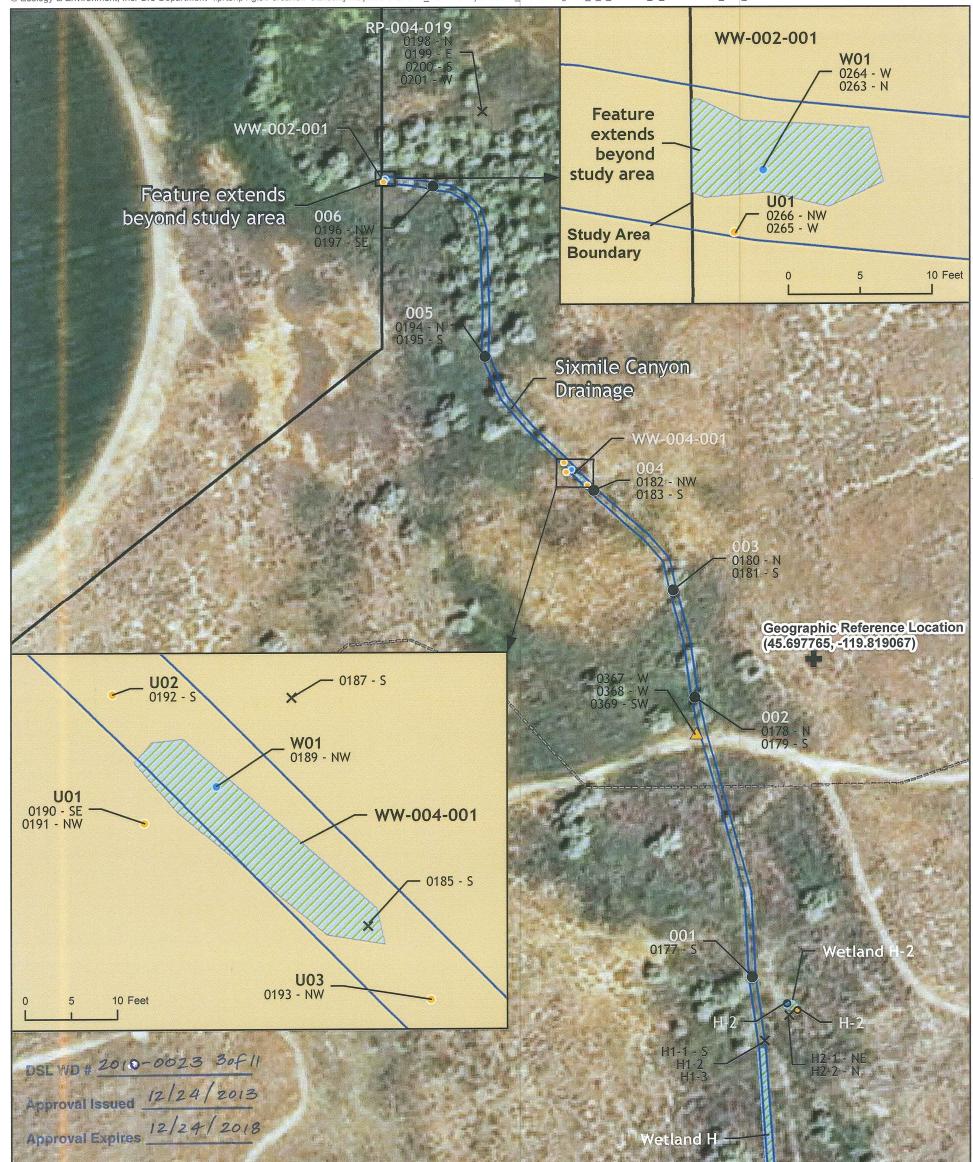


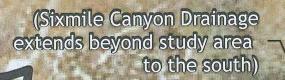
December 2013

© Ecology & Environment, Inc. GIS Department \\prtbhp1\gis\Portland\PGE\Carty\Maps\MXDs\2013_FieldSurvey\Wetland_Results\Figure5_1_1_WetlandA_Overview_2013.mxd 12/23/2013

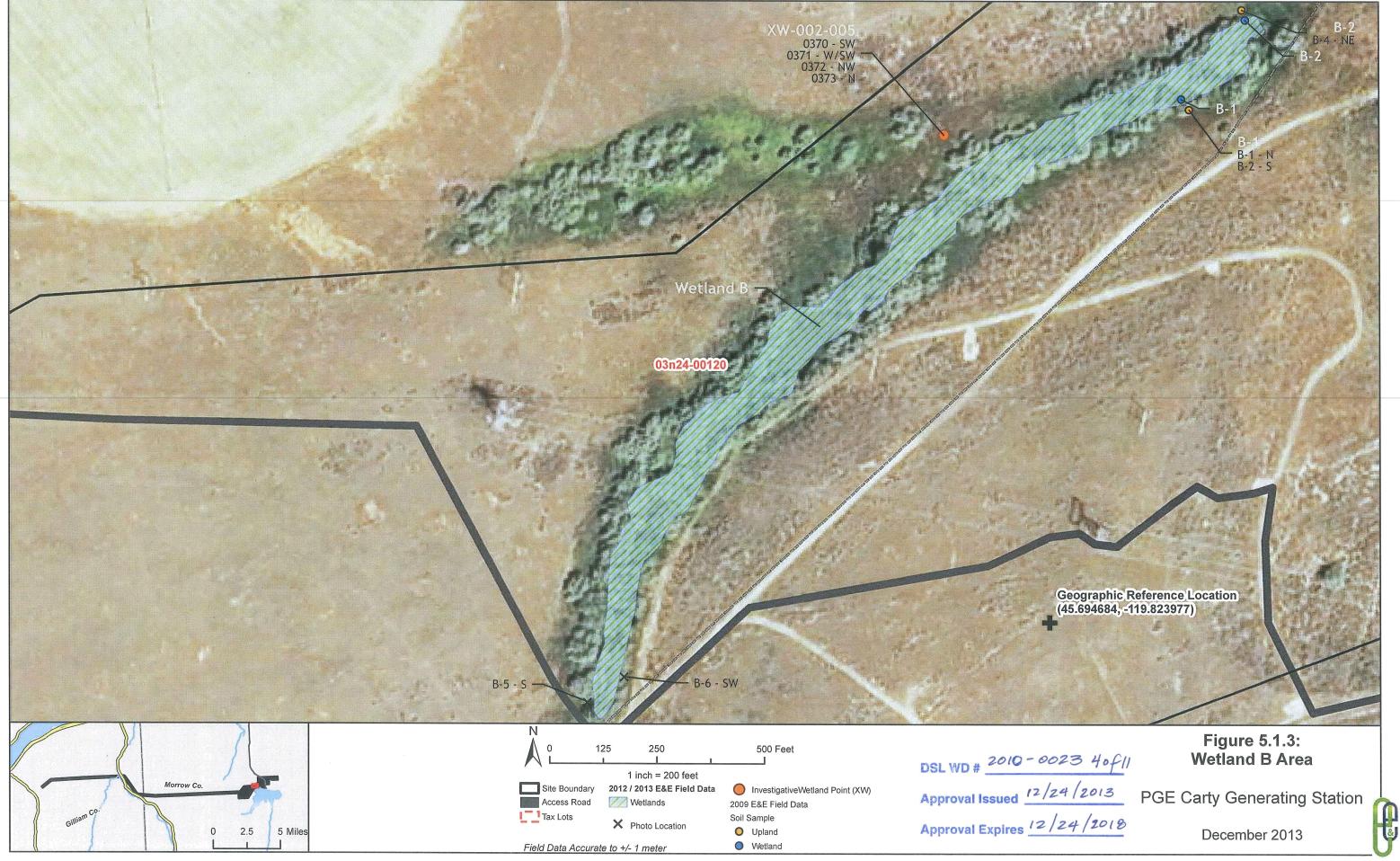


© Ecology & Environment, Inc. GIS Department \\prtbhp1\gis\Portland\PGE\Carty\Maps\MXDs\2013_FieldSurvey\Wetland_Results\Figure5_1_2_Welands_H_WW-002-001_WW_004-001.mxd 12/23/2013





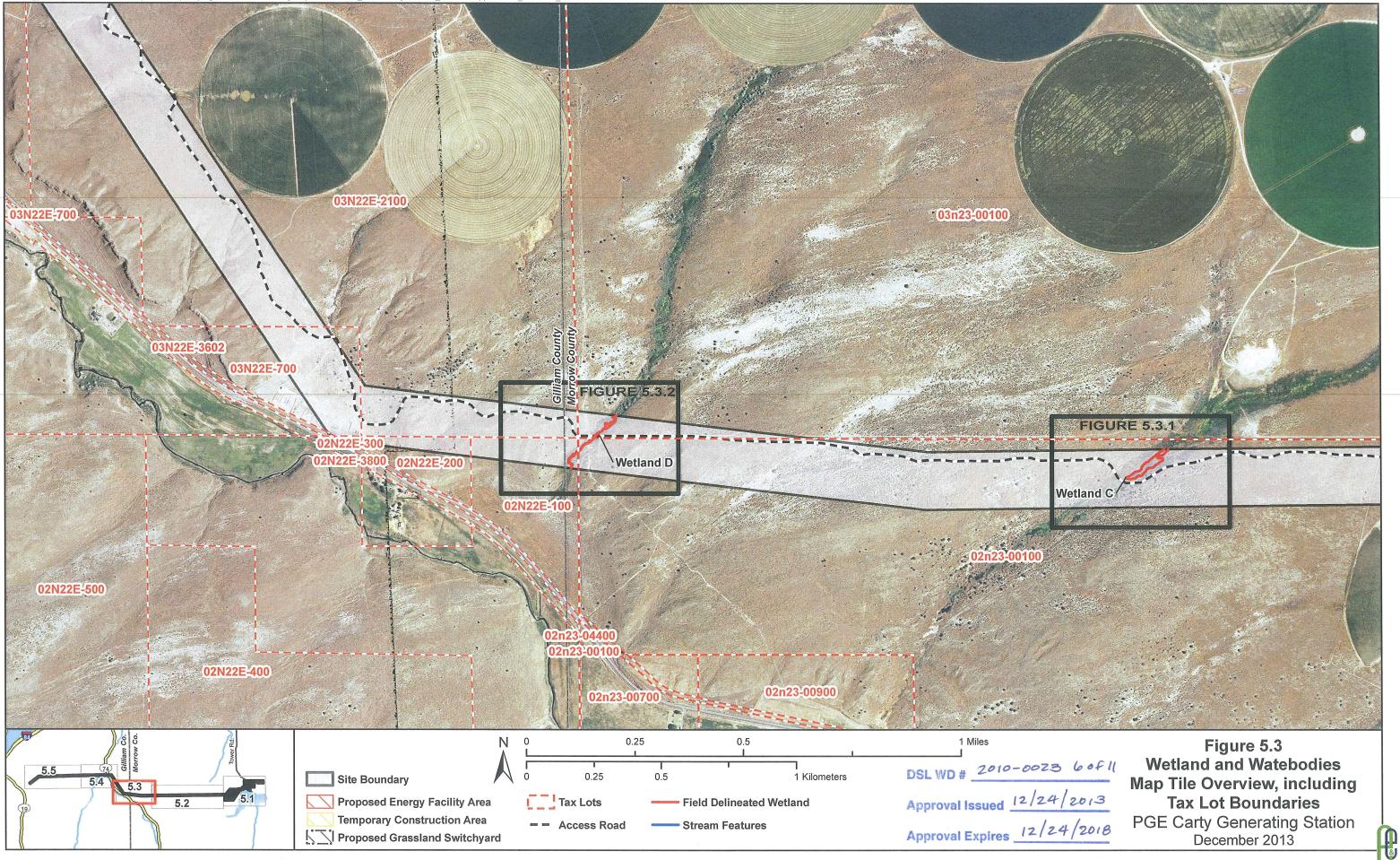
0 1,000 2,000 Feet WW-002-002		125 250	500 Feet	We	Figure 5.1.2: tlands H, WW-002-001,	
WW-002-001	Site Boundary Access Road Culvert / Bridge Road Crossing Field Data Accur	2012 / 2013 E&E Field Data Wetlands Six-mile Canyon Drainage (OHWM width is 10 feet) CHWM width is 10 feet) CHWM contained Photo Location Photo Location Photo Location Photo +/- 1 meter	 SDAM Points Soil Points Upland Wetland 	2009 E&E Field Data Soil Sample O Upland Wetland PGE	and WW-004-001 Carty Generating Station December 2013	



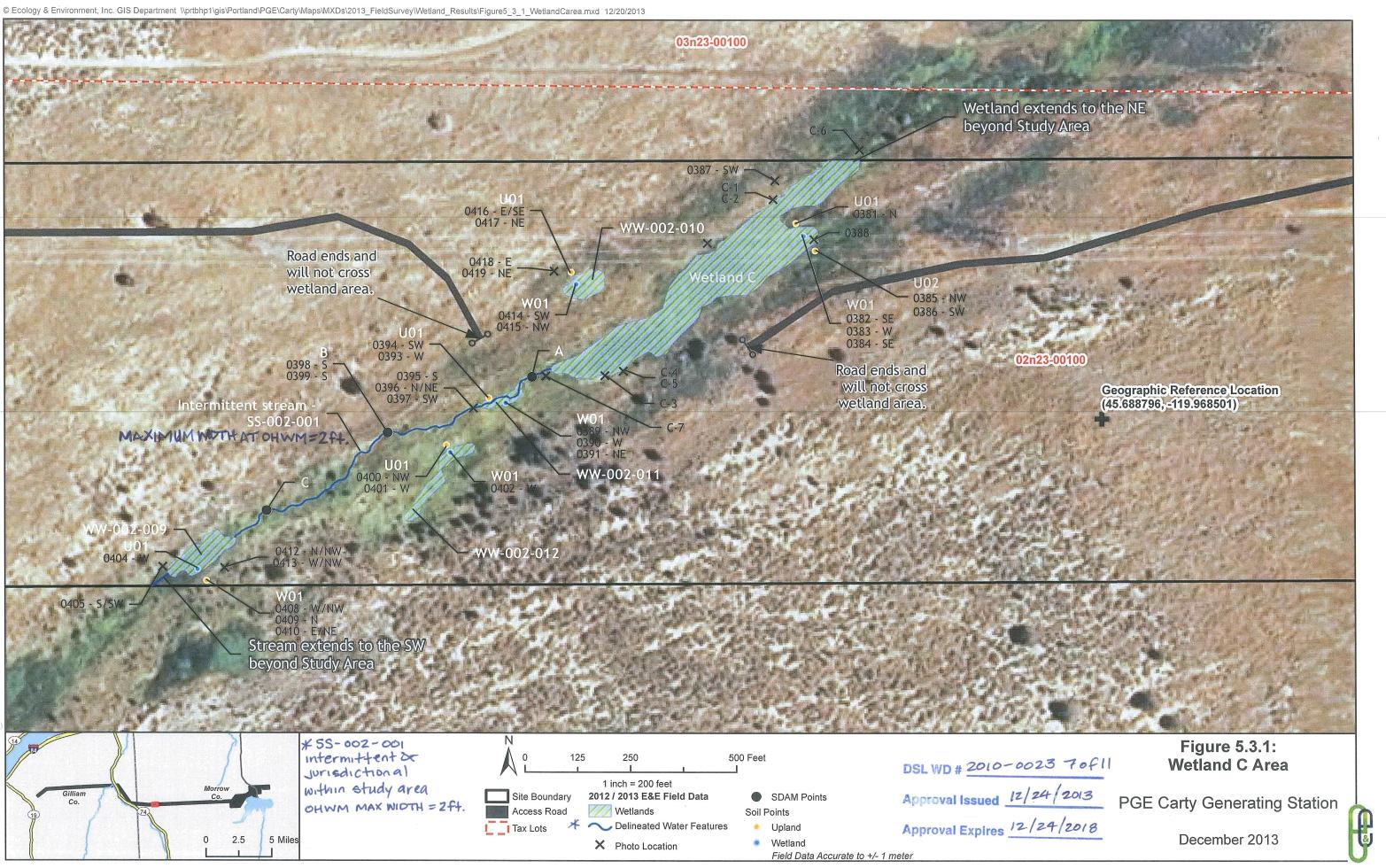
© Ecology & Environment, Inc. GIS Department \\prtbhp1\gis\Portland\PGE\Carty\Maps\MXDs\2013 FieldSurvey\Wetland Results\Supplemental Wetlands Tiles.mxd 12/19/2013 10:38:15 AM

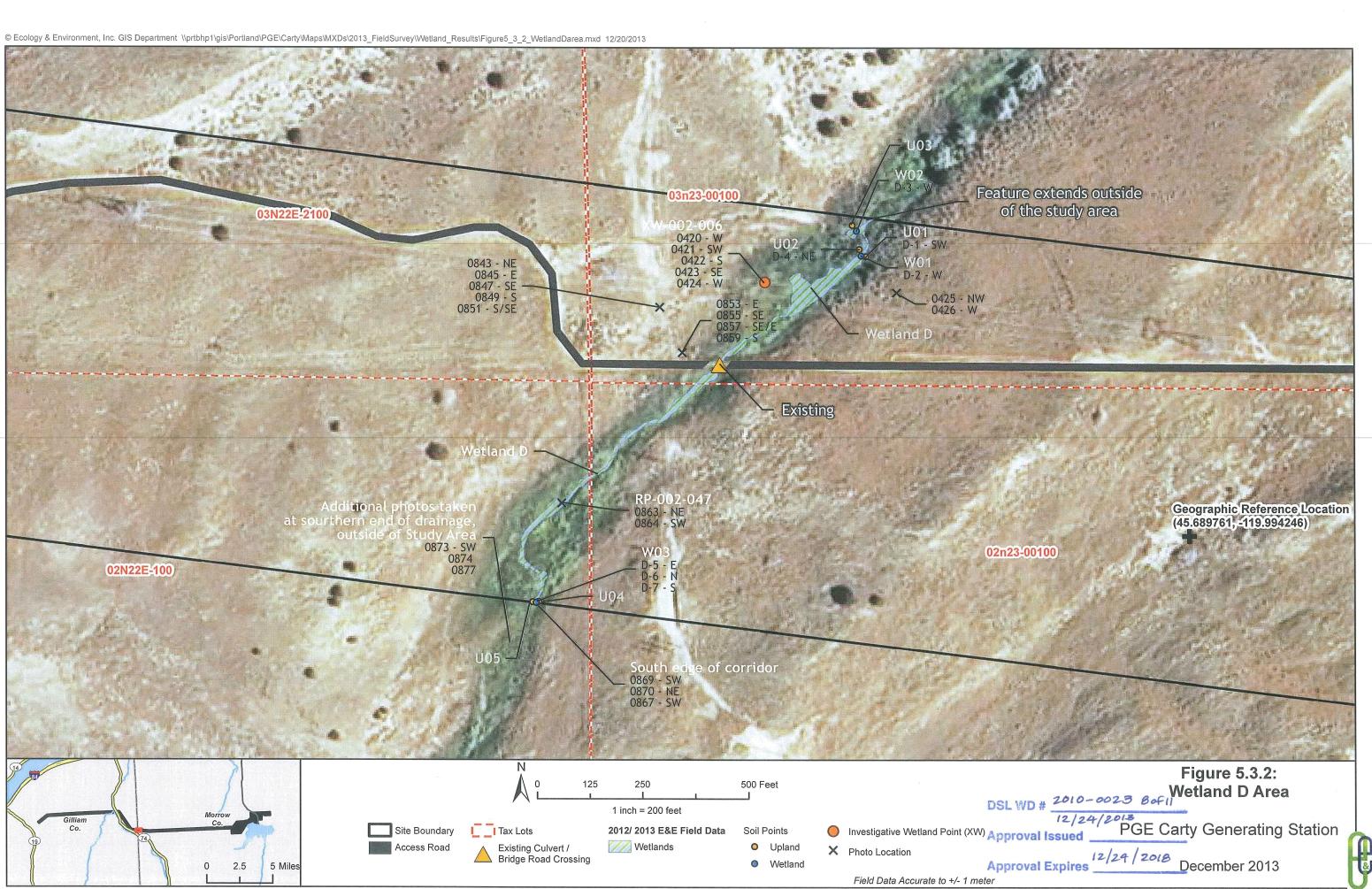




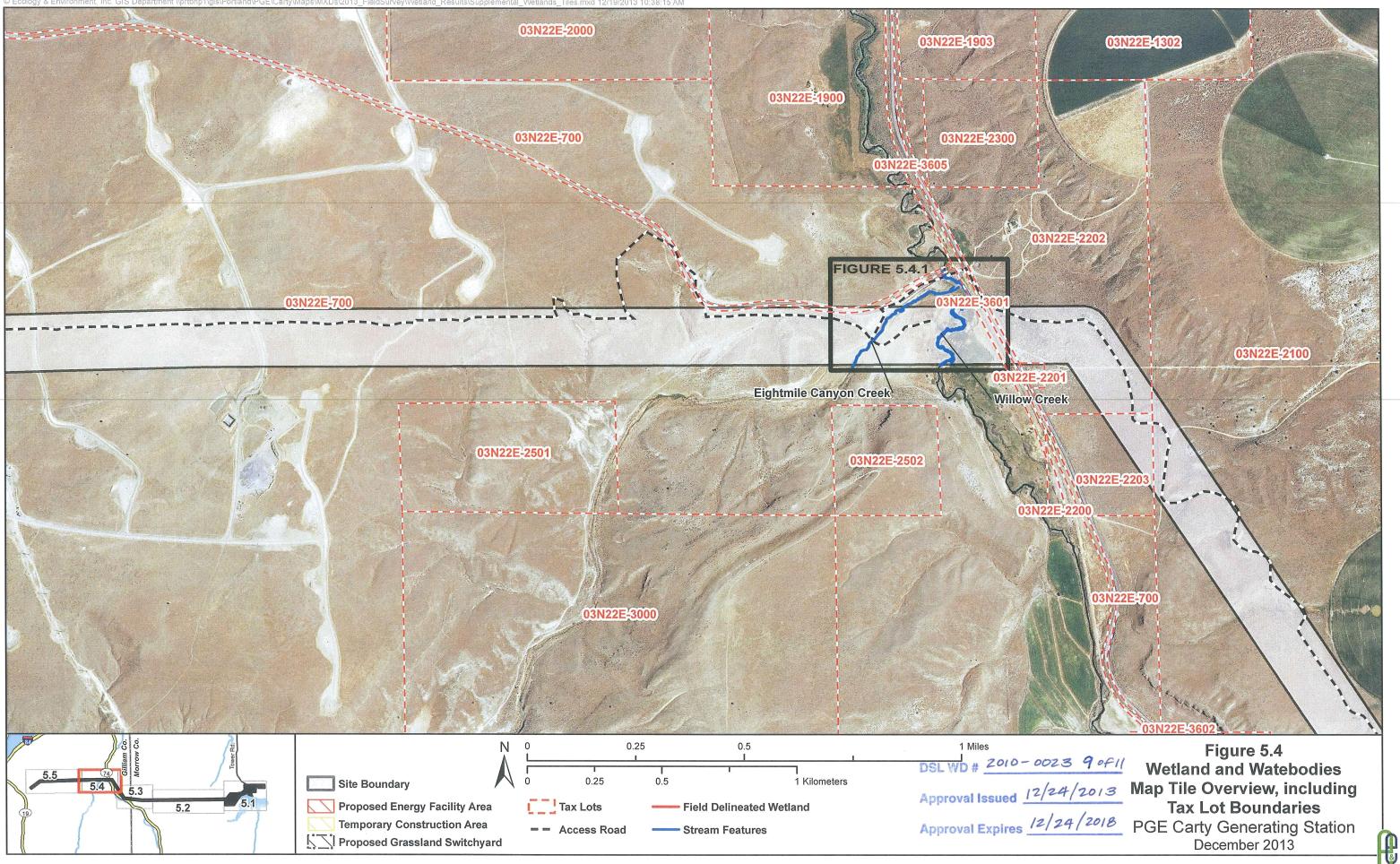


December 2013

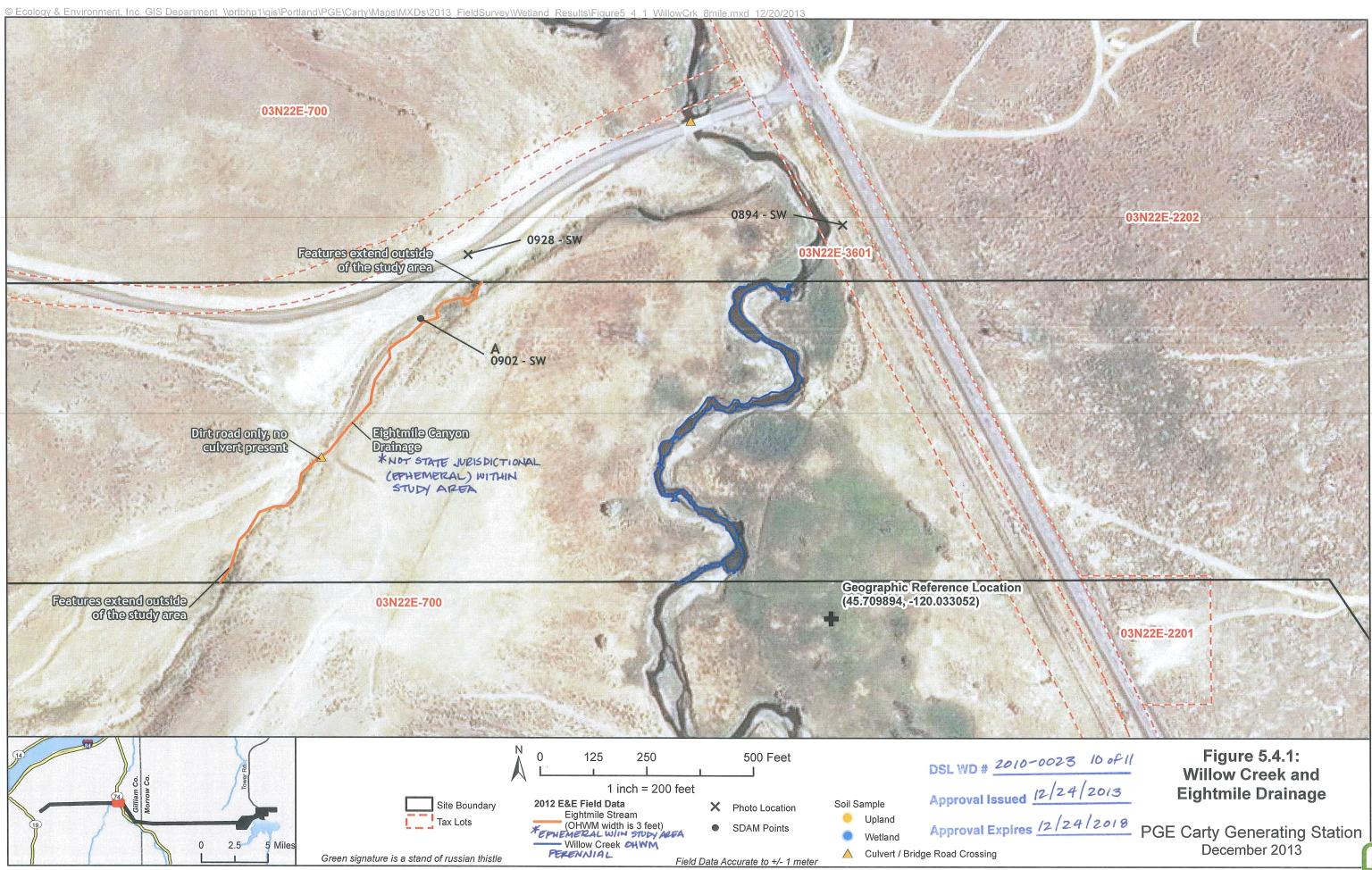




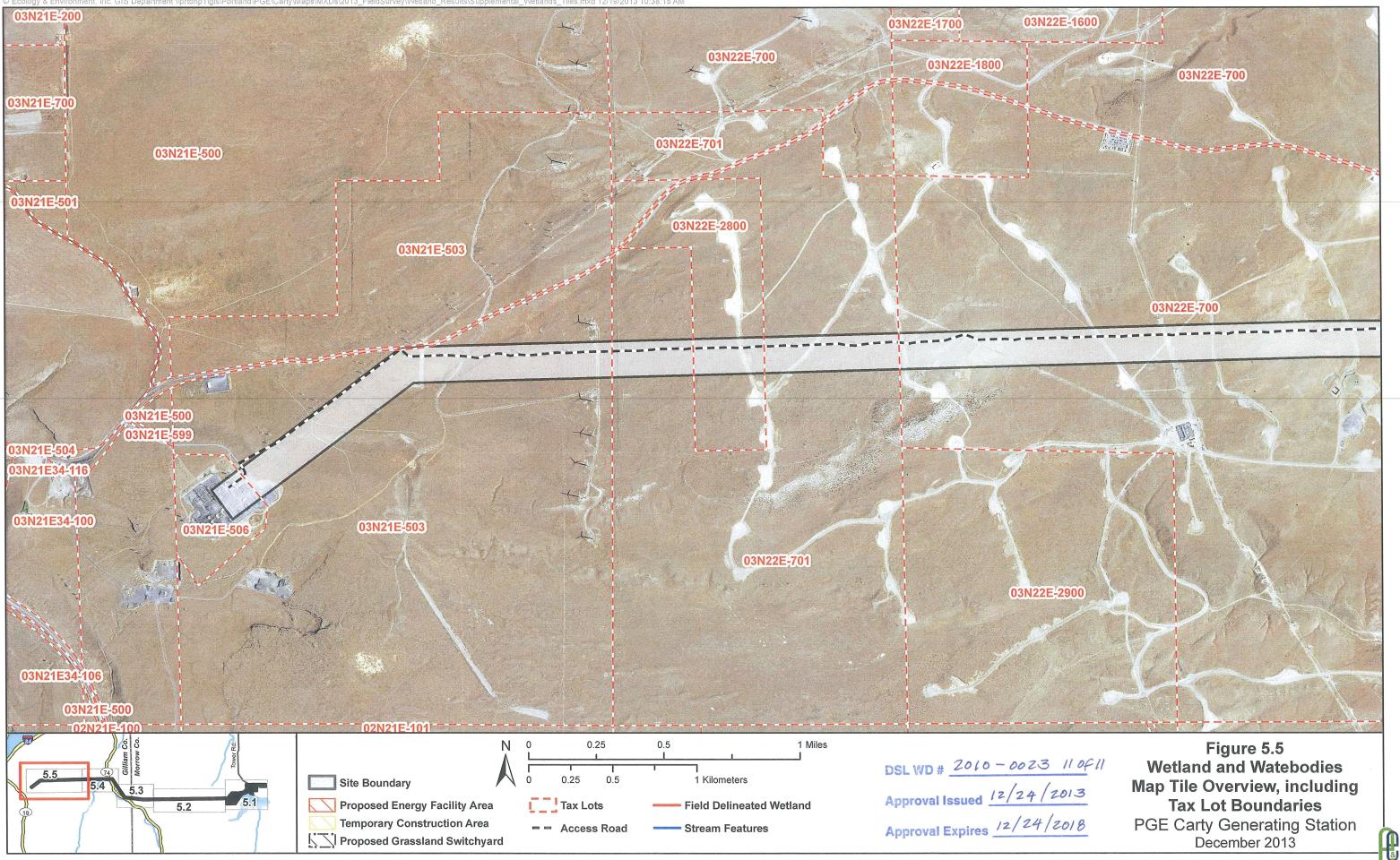
© Ecology & Environment, Inc. GIS Department \\prtbhp1\gis\Portland\PGE\Carty\Maps\MXDs\2013_FieldSurvey\Wetland_Results\Supplemental_Wetlands_Tiles.mxd 12/19/2013 10:38:15 AM



December 2013

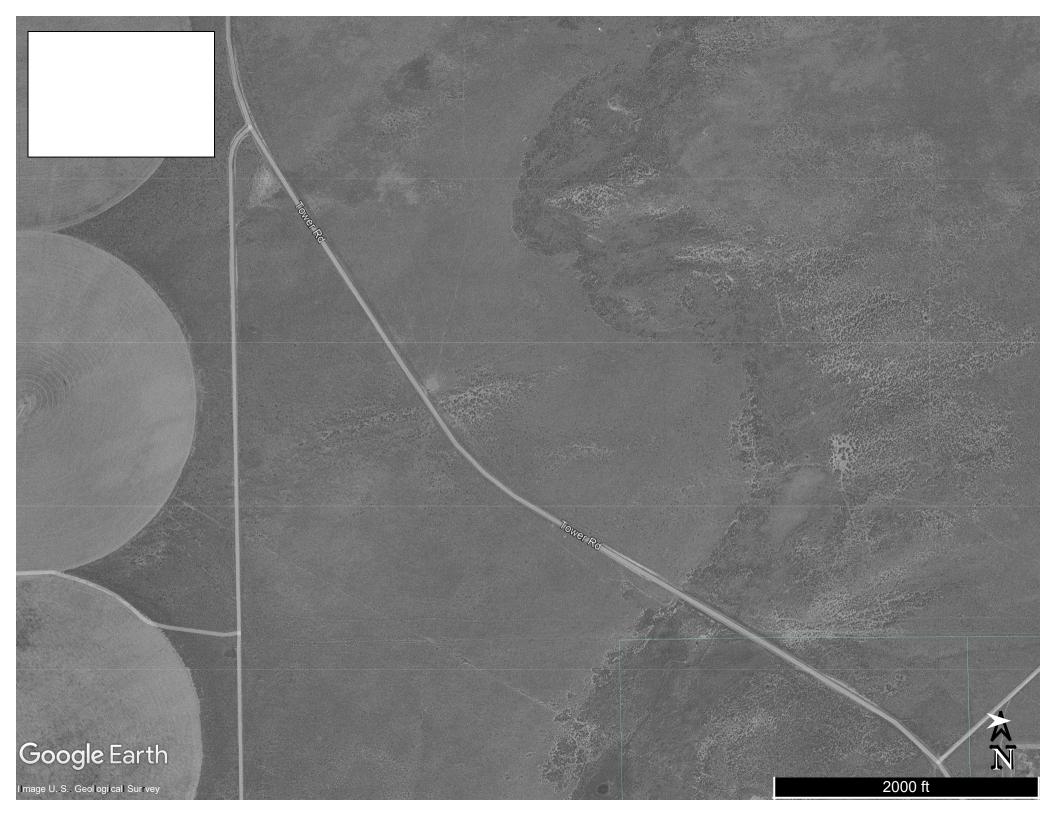


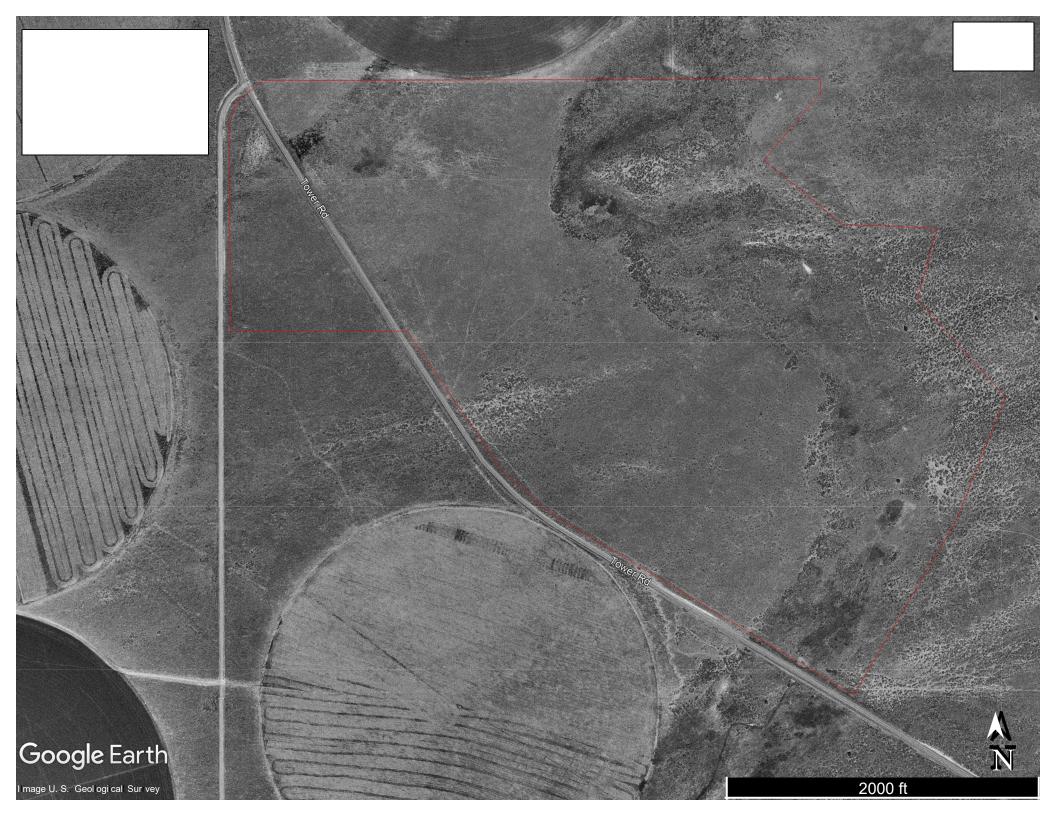
Inc. GIS Department \\prtbl s\Portland\PGE\Carty\Maps\MXDs\2013 FieldSurvey\Wetland Results\Supplemental Wetlands Tiles.mxd 12/19/2013 10:38:15 AM

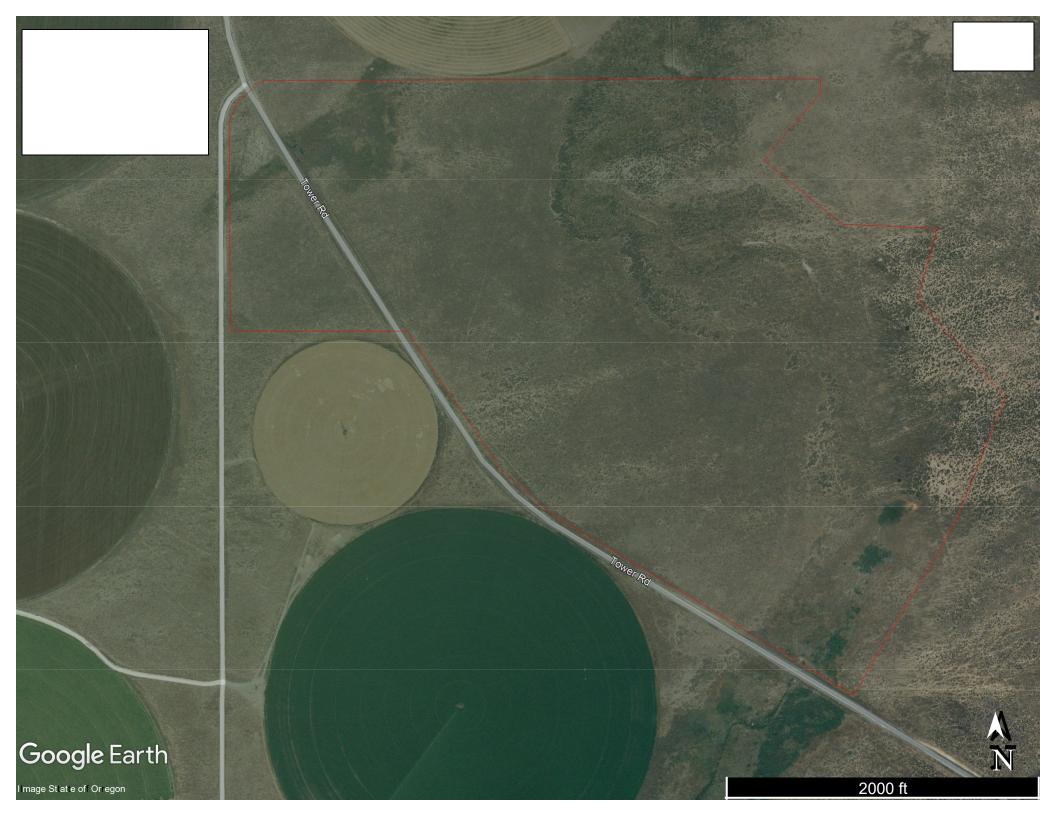




Appendix C: Google Earth Aerial Images



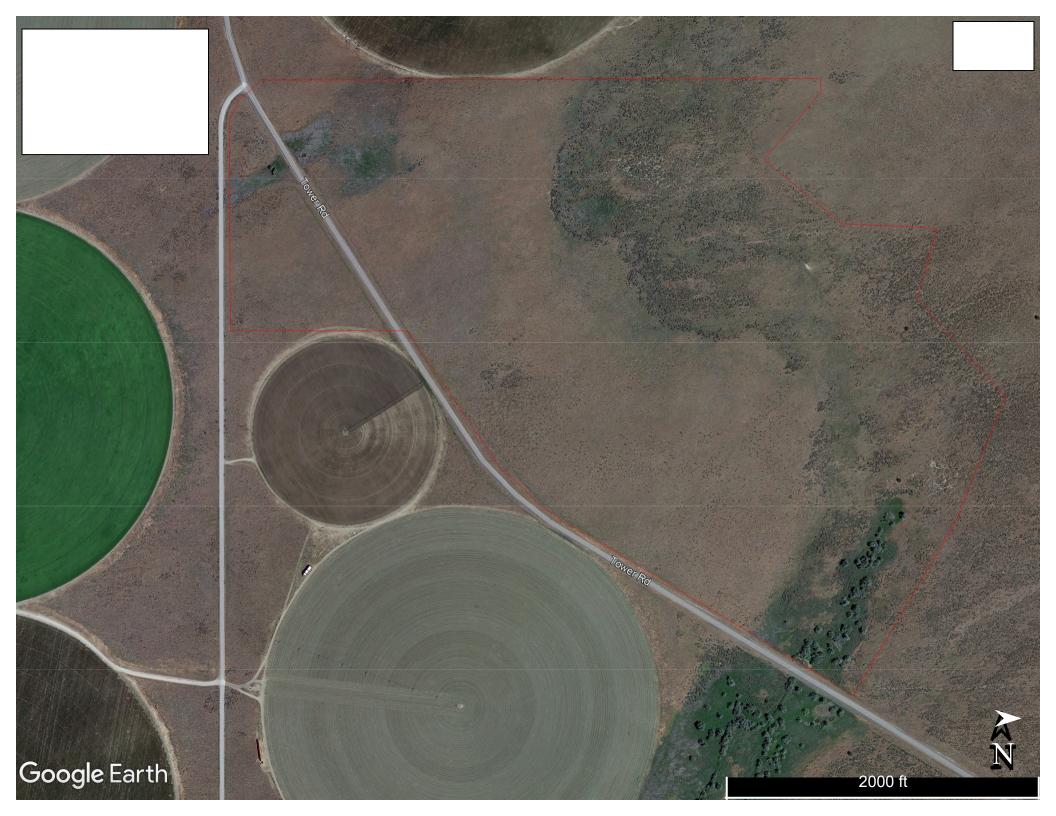
















Appendix D: Precipitation Data

Climatological Data for BOARDMAN, OR - July 2021

2021-07-01	110	72	91.0	51	41	0.00	0.0	0
2021-07-02	97	65	81.0	41	31	0.00	0.0	0
2021-07-03	99	65	82.0	42	32	0.00	0.0	0
2021-07-04	103	69	86.0	46	36	0.00	0.0	0
2021-07-05	101	70	85.5	46	36	0.00	0.0	0
2021-07-06	102	66	84.0	44	34	0.00	0.0	0
2021-07-07	100	66	83.0	43	33	0.00	0.0	0
2021-07-08	94	63	78.5	39	29	0.00	0.0	0
2021-07-09	98	63	80.5	41	31	0.00	0.0	0
2021-07-10	95	61	78.0	38	28	0.00	0.0	0
2021-07-11	102	62	82.0	42	32	0.00	0.0	0
2021-07-12	100	65	82.5	43	33	0.00	0.0	0
2021-07-13	101	64	82.5	43	33	0.00	0.0	0
2021-07-14	102	71	86.5	47	37	0.00	0.0	0
2021-07-15	105	68	86.5	47	37	0.00	0.0	0
2021-07-16	96	65	80.5	41	31	0.00	0.0	0
2021-07-17	95	63	79.0	39	29	0.00	0.0	0
2021-07-18	92	62	77.0	37	27	0.00	0.0	0
2021-07-19	96	62	79.0	39	29	0.00	0.0	0
2021-07-20	95	66	80.5	41	31	0.00	0.0	0
2021-07-21	96	64	80.0	40	30	0.00	0.0	0
2021-07-22	88	55	71.5	32	22	0.00	0.0	0
2021-07-23	88	55	71.5	32	22	0.00	0.0	0
2021-07-24	95	63	79.0	39	29	0.00	0.0	0
2021-07-25	97	65	81.0	41	31	0.00	0.0	0
2021-07-26	103	65	84.0	44	34	0.00	0.0	0
2021-07-27	91	65	78.0	38	28	0.00	0.0	0
2021-07-28	84	64	74.0	34	24	0.00	0.0	0
2021-07-29	95	65	80.0	40	30	0.00	0.0	0
2021-07-30	102	67	84.5	45	35	0.00	0.0	0
2021-07-31	108	71	89.5	50	40	0.00	0.0	0

Climatological Data for BOARDMAN, OR - August 2021

2021-08-01	98	76	87.0	47	37	0.00	0.0	0
2021-08-02	96	70	83.0	43	33	0.00	0.0	0
2021-08-03	101	66	83.5	44	34	0.00	0.0	0
2021-08-04	102	67	84.5	45	35	0.00	0.0	0
2021-08-05	95	67	81.0	41	31	0.00	0.0	0
2021-08-06	91	67	79.0	39	29	0.00	0.0	0
2021-08-07	91	67	79.0	39	29	0.00	0.0	0
2021-08-08	94	60	77.0	37	27	0.00	0.0	0
2021-08-09	83	56	69.5	30	20	0.00	0.0	0
2021-08-10	86	55	70.5	31	21	0.00	0.0	0
2021-08-11	95	60	77.5	38	28	0.00	0.0	0
2021-08-12	101	65	83.0	43	33	0.00	0.0	0
2021-08-13	101	64	82.5	43	33	0.00	0.0	0
2021-08-14	92	63	77.5	38	28	0.00	0.0	0
2021-08-15	100	66	83.0	43	33	0.00	0.0	0
2021-08-16	98	66	82.0	42	32	0.00	0.0	0
2021-08-17	102	60	81.0	41	31	0.00	0.0	0
2021-08-18	79	60	69.5	30	20	0.02	0.0	0
2021-08-19	83	56	69.5	30	20	0.00	0.0	0
2021-08-20	88	58	73.0	33	23	0.00	0.0	0
2021-08-21	79	49	64.0	24	14	0.00	0.0	0
2021-08-22	78	51	64.5	25	15	0.00	0.0	0
2021-08-23	82	52	67.0	27	17	0.00	0.0	0
2021-08-24	76	44	60.0	20	10	0.00	0.0	0
2021-08-25	82	46	64.0	24	14	0.00	0.0	0
2021-08-26	84	51	67.5	28	18	0.00	0.0	0
2021-08-27	84	60	72.0	32	22	0.00	0.0	0
2021-08-28	81	51	66.0	26	16	0.00	0.0	0
2021-08-29	87	52	69.5	30	20	0.00	0.0	0
2021-08-30	89	53	71.0	31	21	0.00	0.0	0
2021-08-31	81	53	67.0	27	17	0.00	0.0	0

Climatological Data for BOARDMAN, OR - September 2021

2021-09-01	79	46	62.5	23	13	0.00	0.0	0
2021-09-02	79	46	62.5	23	13	0.00	0.0	0
2021-09-03	81	М	М	М	М	0.00	0.0	0
2021-09-04	83	49	66.0	26	16	0.00	0.0	0
2021-09-05	89	57	73.0	33	23	0.00	0.0	0
2021-09-06	96	66	81.0	41	31	0.00	0.0	0
2021-09-07	89	54	71.5	32	22	0.00	0.0	0
2021-09-08	87	55	71.0	31	21	0.00	0.0	0
2021-09-09	95	57	76.0	36	26	0.00	0.0	0
2021-09-10	83	63	73.0	33	23	0.00	0.0	0
2021-09-11	71	56	63.5	24	14	0.32	0.0	0
2021-09-12	78	54	66.0	26	16	0.00	0.0	0
2021-09-13	84	56	70.0	30	20	0.00	0.0	0
2021-09-14	78	49	63.5	24	14	0.00	0.0	0
2021-09-15	87	49	68.0	28	18	0.00	0.0	0
2021-09-16	81	45	63.0	23	13	0.00	0.0	0
2021-09-17	71	43	57.0	17	7	0.00	0.0	0
2021-09-18	78	46	62.0	22	12	0.01	0.0	0
2021-09-19	78	45	61.5	22	12	0.04	0.0	0
2021-09-20	72	52	62.0	22	12	0.00	0.0	0
2021-09-21	73	43	58.0	18	8	0.00	0.0	0
2021-09-22	78	43	60.5	21	11	0.00	0.0	0
2021-09-23	80	47	63.5	24	14	0.00	0.0	0
2021-09-24	78	47	62.5	23	13	0.00	0.0	0
2021-09-25	80	47	63.5	24	14	0.00	0.0	0
2021-09-26	92	55	73.5	34	24	0.00	0.0	0
2021-09-27	88	62	75.0	35	25	0.00	0.0	0
2021-09-28	75	51	63.0	23	13	0.22	0.0	0
2021-09-29	69	45	57.0	17	7	0.00	0.0	0
2021-09-30	70	47	58.5	19	9	0.00	0.0	0

Climatological Data for BOARDMAN, OR - January 2022

2022-01-01	25	5	15.0	0	0	0.00	0.0	0
2022-01-02	14	5	9.5	0	0	0.00	0.0	0
2022-01-03	27	6	16.5	0	0	0.00	0.0	0
2022-01-04	37	25	31.0	0	0	0.33	2.0	0
2022-01-05	39	28	33.5	0	0	0.00	0.0	0
2022-01-06	36	28	32.0	0	0	0.43	0.0	0
2022-01-07	36	28	32.0	0	0	0.00	0.0	0
2022-01-08	45	31	38.0	0	0	0.00	0.0	0
2022-01-09	48	25	36.5	0	0	0.00	0.0	0
2022-01-10	42	25	33.5	0	0	0.00	0.0	0
2022-01-11	37	26	31.5	0	0	0.00	0.0	0
2022-01-12	40	32	36.0	0	0	0.00	0.0	0
2022-01-13	43	28	35.5	0	0	0.00	0.0	0
2022-01-14	40	29	34.5	0	0	0.00	0.0	0
2022-01-15	37	32	34.5	0	0	0.08	1.0	0
2022-01-16	35	32	33.5	0	0	Т	0.0	0
2022-01-17	34	32	33.0	0	0	0.00	0.0	0
2022-01-18	35	31	33.0	0	0	0.00	0.0	0
2022-01-19	40	31	35.5	0	0	0.00	0.0	0
2022-01-20	38	33	35.5	0	0	0.08	0.0	0
2022-01-21	36	36	36.0	0	0	0.00	0.0	0
2022-01-22	60	34	47.0	7	0	0.00	0.0	0
2022-01-23	50	26	38.0	0	0	0.00	0.0	0
2022-01-24	34	30	32.0	0	0	0.00	0.0	0
2022-01-25	33	30	31.5	0	0	0.02	Т	0
2022-01-26	34	31	32.5	0	0	0.00	0.0	0
2022-01-27	34	31	32.5	0	0	0.00	0.0	0
2022-01-28	36	31	33.5	0	0	0.00	0.0	0
2022-01-29	34	30	32.0	0	0	0.00	0.0	0
2022-01-30	35	31	33.0	0	0	0.00	0.0	0
2022-01-31	43	31	37.0	0	0	0.02	0.0	0

Climatological Data for BOARDMAN, OR - February 2022

2022-02-01	49	25	37.0	0	0	0.00	0.0	0
2022-02-02	50	29	39.5	0	0	0.00	0.0	0
2022-02-03	39	28	33.5	0	0	0.00	0.0	0
2022-02-04	46	25	35.5	0	0	0.00	0.0	0
2022-02-05	47	26	36.5	0	0	0.00	0.0	0
2022-02-06	57	27	42.0	2	0	0.00	0.0	0
2022-02-07	49	26	37.5	0	0	0.00	0.0	0
2022-02-08	63	26	44.5	5	0	0.00	0.0	0
2022-02-09	50	31	40.5	1	0	0.00	0.0	0
2022-02-10	63	33	48.0	8	0	0.00	0.0	0
2022-02-11	63	31	47.0	7	0	0.00	0.0	0
2022-02-12	56	25	40.5	1	0	0.00	0.0	0
2022-02-13	54	25	39.5	0	0	0.00	0.0	0
2022-02-14	50	25	37.5	0	0	0.00	0.0	0
2022-02-15	58	34	46.0	6	0	0.00	0.0	0
2022-02-16	58	39	48.5	9	0	0.00	0.0	0
2022-02-17	60	37	48.5	9	0	0.00	0.0	0
2022-02-18	53	29	41.0	1	0	0.00	0.0	0
2022-02-19	59	29	44.0	4	0	0.00	0.0	0
2022-02-20	55	42	48.5	9	0	0.00	0.0	0
2022-02-21	54	40	47.0	7	0	0.00	0.0	0
2022-02-22	46	21	33.5	0	0	0.00	0.0	0
2022-02-23	31	12	21.5	0	0	0.00	0.0	0
2022-02-24	32	12	22.0	0	0	0.00	0.0	0
2022-02-25	34	12	23.0	0	0	0.50	0.0	0
2022-02-26	39	12	25.5	0	0	0.00	0.0	0
2022-02-27	42	19	30.5	0	0	0.00	0.0	0
2022-02-28	47	32	39.5	0	0	0.06	0.0	0

Climatological Data for BOARDMAN, OR - March 2022

2022-03-01	62	39	50.5	11	1	Т	М	М
2022-03-02	69	45	57.0	17	7	0.30	М	М
2022-03-03	51	43	47.0	7	0	0.32	М	М
2022-03-04	57	31	44.0	4	0	0.00	М	М
2022-03-05	55	30	42.5	3	0	0.00	М	М
2022-03-06	58	27	42.5	3	0	0.00	М	М
2022-03-07	57	29	43.0	3	0	0.00	М	М
2022-03-08	66	34	50.0	10	0	0.00	М	М
2022-03-09	47	34	40.5	1	0	0.18	М	М
2022-03-10	46	35	40.5	1	0	0.00	М	М
2022-03-11	50	35	42.5	3	0	0.00	М	М
2022-03-12	67	33	50.0	10	0	0.00	М	М
2022-03-13	65	34	49.5	10	0	Т	М	М
2022-03-14	61	42	51.5	12	2	Т	М	М
2022-03-15	56	42	49.0	9	0	0.25	М	М
2022-03-16	62	43	52.5	13	3	0.00	М	М
2022-03-17	60	31	45.5	6	0	0.00	М	М
2022-03-18	59	31	45.0	5	0	0.00	М	М
2022-03-19	62	39	50.5	11	1	0.00	М	М
2022-03-20	60	37	48.5	9	0	0.00	М	М
2022-03-21	57	41	49.0	9	0	0.05	М	М
2022-03-22	54	41	47.5	8	0	0.00	М	М
2022-03-23	65	40	52.5	13	3	0.00	М	М
2022-03-24	71	37	54.0	14	4	0.00	М	М
2022-03-25	65	37	51.0	11	1	0.00	М	М
2022-03-26	61	39	50.0	10	0	0.00	М	М
2022-03-27	67	42	54.5	15	5	0.00	М	М
2022-03-28	65	45	55.0	15	5	0.00	М	М
2022-03-29	70	46	58.0	18	8	0.00	М	М
2022-03-30	70	46	58.0	18	8	0.00	М	М
2022-03-31	61	38	49.5	10	0	0.00	М	М

WETS Station: BOARDMAN, OR

Requested years: 1971 - 2021

Month Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0. 10 or more	Avg Snowfall
Jan 41.4	27.2	34.3	1.21	0.74	1.46	4	2.6
Feb 47.8	28.8	38.3	0.88	0.48	1.07	3	2.1
Mar 57.8	33.6	45.7	0.68	0.43	0.82	3	0.2
Apr 66.0	39.4	52.7	0.66	0.26	0.80	2	0.0
May 74.7	46.8	60.8	0.72	0.36	0.88	3	0.0
Jun 82.2	53.9	68.0	0.47	0.18	0.54	2	0.0
Jul 90.9	59.0	74.9	0.18	0.00	0.17	1	0.0
Aug 89.2	57.7	73.5	0.27	0.07	0.24	1	0.0
Sep 79.7	48.7	64.2	0.37	0.10	0.36	1	0.0
Oct 66.1	39.0	52.5	0.63	0.31	0.75	2	0.0
Nov 51.2	32.6	41.9	1.07	0.60	1.30	4	0.6
Dec 41.6	27.7	34.7	1.30	0.75	1.58	5	2.9
Annual:				7.01	8.97		
Average 65.7	41.2	53.5	-	-	-	-	-
Total -		-	8.43			30	8.4

GROWING SEASON DATES

Years with missing data:	24 deg =	28 deg =	32 deg =
	9	6	5
Years with no occurrence:	24 deg =	28 deg =	32 deg =
	0	0	0
Data years used:	24 deg =	28 deg =	32 deg =
	42	45	46
Probability	24 F or	28 F or	32 F or
	higher	higher	higher
50 percent *	3/9 to	4/3 to	4/16 to
	11/16:	10/29:	10/16:
	252 days	209 days	183 days
70 percent *	3/2 to	3/29 to	4/11 to
	11/24:	11/4: 220	10/21:
	267 days	days	193 days

* Percent chance of the growing season occurring between the Beginning and

Ending dates.

STATS TABLE - total

precipitation (inches)														
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl	
1971								M0.19	0. 88	0. 43	0.91	1.33	3.74	
1972	0.48	0.49	0.40	0.02	1.99	1.79	0.06	0.01	0. 04	0. 22	0.60	1.30	7.40	
1973	0.87	0.41	0.19	0.21	0.42	0.03	0.03	0.01	0. 62	0. 68	3.43	2.76	9.66	
1974	0.79	0.69	0.88	1.20	0.20	0.13	0.25	0.00	Т	0. 41	0.55	1.18	6.28	
1975	1.85	0.97	0.35	0.56	0.11	0.12	0.37	1.05	Т	0. 82	0.53	0.98	7.71	
1976	0.88	0.58	0.42	0.71	0.10	0.13	0.23	0.94	0. 46	0. 08	0.50	0.15	5.18	
1977	0.10	0.57	0.65	0.02	0.86	0.16	0.09	1.01	0. 82	0. 50	1.34	2.62	8.74	
1978	2.40	0.91	0.47	1.49	0.48	0.26	0.82	1.07	0. 14	0. 02	1.40	1.13	10. 59	
1979	1.28	0.60	0.69	1.12	0.21	0.02	0.36	0.50	0.	1.	1.65	0.48	7.97	

									00	00			
1980	2.87	1.20	0.60	0.62	1.06	1.23	т	0.20	06 0. 30	00 0. 40	0.99	1.71	11. 18
1981	1.22	0.91	0.20	0.11	1.20	1.19	т	т	0.	0.	1.06	2.59	9.62
1982	0.71	M0.51	0.70	1.00	0.89	0.94	0.35	0.15	70 2.	44 1.	0.46	1.67	11. 54
1983	1.49	1.76	1.38	0.85	0.59	0.27	1.14	0.77	35 0.	81 0.	1.88	1.96	54 12.
1984	0.47	1.06	1.43	0.63	0.36	0.55	0.00	т	24 0.	59 0.	2.53	0.32	92 8.70
1985	0.18	0.74	0.46	0.77	0.30	0.69	0.00	0.30	99 0.	36 0.	1.32	0.48	6.91
1986	1.15	1.52	0.82	0.14	0.72	0.08	0.63	0.14	99 1.	68 0.	1.38	1.31	9.86
1987	1.71	0.48	1.12	0.15	0.16	0.11	т	0.04	19 0.	78 0.	0.33	1.97	6.10
1988	1.50	0.01	0.93	2.86	0.74	0.51	M0.26	0.00	02 0.	01 0.	1.84	0.15	9.23
1989	0.59	0.48	1.58	1.22	0.45	0.03	0.08	0.45	43 0.	00 0.	1.49	0.47	7.26
1990	1.19		0.57	1.11	0.74	0.09	0.07	0.88	02 0.	40 0.	0.45	M0.	6.36
1991	M0.35	0.79	1.14	0.14	0.80	0.36	0.04	0.08	00 0.	94 M0.	M2.	32 0.56	6.57
1992	0.66	1.45	0.29	1.27	0.08	0.53	0.70	0.89	01 0.	29 0.	01 1.11	M1.	8.99
1993	1.38	1.34	M1.11	0.93	0.72	0.52	0.16	0.19	31 0.	67 T	0.23	03 0.55	7.13
1994	0.61	1.22	0.32	0.30	1.35	0.23	0.21	0.00	00 0.	0.	1.56	1.12	7.91
1995	2.86	M0.37	0.88	M0.57		0.88	0.77	0.02	03 0.	96 0.	1.08	M1.	9.94
1996	M1.01	1.14		1.30	0.81		0.11	т	36 0.	27 0.	M0.	88 M2.	8.34
1997	M1.23	0.68	1.18	M0.80	M0.40	0.64		0.19	15 0.	87 1.	42 1.76	53 0.76	10.
1998	M1.97	3.42	0.43	0.31	1.22	0.71	1.10	0.01	87 0.	83 0.	1.95	1.31	34 12.
1999	1.22	0.89	0.10	0.05	0.34	0.03	т	0.20	15 0.	17 0.	0.85	0.63	75 5.04
2000	1.37	1.53	0.82	0.02	0.48	0.33	0.00	Т	00 0.	73 1.	0.84	M0.	7.39
2001	0.51	0.31	0.56	0.70	0.10	0.29	0.11	0.25	49 T	03 0.	1.59	48 0.77	
2002	0.39	0.75	0.56	0.32	0.40	0.73	0.11	0.01	0.	59 0.	0.23		6.46
2003	1.95	0.87	0.34	0.56	M0.26	0.00	Т	0.60	05 0.	0. 19 0.	M0.		7.63
2003	1.53	0.60	0.16	M0.11	1.36	0.89	0.00	0.67	50 0.	0. 21 1.	34 0.14	0.94	
									19	08			
2005	M0.78	Т	0.76	0.56	0.71	0.08	0.09	0.00	0. 00	0. 69	1.85	M2. 50	8.02
2006	2.76	0.45	0.71		1.84	1.04	0.00	0.00	0. 48	1. 06	1.58	1.60	11. 52
2007	0.32	0.88	0.44	0.97	0.20	1.00	0.04	0.58	0. 03	0. 74	1.47		8.46
2008	1.63	0.49	0.37	0.20	0.46	0.56	0.00	0.10	0. 08	0. 10	0.69	04	5.72
2009	1.24	0.92	1.20	M0.20	1.74	Т	0.00	0.00	0. 00	1. 18	0.20	1.03	7.71
2010	2.05	0.72	0.24		1.59	1.94	0.02	0.14	1. 53	0. 89	0.89	2.81	12. 82
2011	M0.89	M0.40	M1.45	M0.30	M0.99	M1.18	МТ		M0. 04	M0. 54	M0. 35	M0. 15	6.29
2012	M1.03	M0.52	M1.25	M0.72	M0.22	M2.22	M0.30	0.00		1. 35		1.88	9.49
2013	0.62	0.13		1.16	0.97	0.89	0.00	0.18	1.	0.	0.25	0.12	5.66

									14	20			
2014	0.67	1.21	0.62	0.45	0.10	0.41	т	0.77	0.	0.	0.76	1.23	6.91
									02	67			
2015	0.63	1.11	0.45	0.19	1.39	Т	Т	0.02	0.	0.	1.09	2.24	7.43
0010									06	25			
2016	1.55	0.46	0.78	0.46	1.55	0.21	0.29	0.16	0. 37	1. 81	0.56	M0. 10	8.30
2017	1.85	1 05	1.25	1.68	0.16	0.04	0.00	0.00			M0		10
2017	1.00	1.85	1.20	1.00	0.16	0.04	0.00	0.09	0. 25	1. 02	M0. 99	0.96	10. 14
2018	1.29	0.21	0.27	1.30	0.48	0.20	0.00	0.03	0.	02	0.41	M0.	5.63
2010	1.20	0.21	0.27	1.00	0.10	0.20	0.00	0.00	00	76	0.11	68	0.00
2019	1.75	2.67	2.05	0.82	0.86	0.54	0.05	0.20	0.	0.	0.09	0.65	10.
									23	28			19
2020	1.47	0.10	0.50	0.09	1.54	0.32	0.00	0.14	0.	0.	1.45	0.89	6.83
									00	33			
2021	0.66	1.02	0.00	0.09	0.28	0.25	0.00	0.02	0.	0.	1.16	1.89	6.64
									59	68			
2022	0.96	0.56	1.10										2.62
Notes: Data missing in any month have an "M" flag. A "T"													
indicates a trace of													
precipitation.													
Data missing for all days in a													
month or year is blank.													
Creation date: 2022-04-06													



Appendix E: Wetland Determination Data Forms (Plots 1-18)

Project/Site: Pe	ercheron			C	ity/County:	Boardman/	Morrow Cour	nty		Sampling D	ate: 3/31/20	22
Applicant/Owner:	Birch Infras	tructure, LLC			-			State: OR		Sampling	Point:	1
Investigator(s):	Sonya Templ	eton, Margret Harburg	g, Stacey Reed, PWS		Section,	Fownship, F	Range: Sec. 2	8, T.3N., R.24	4E., W.	М.		
Landform (hillslope, t	terrace, etc.):	Terrace				Local re	elief (concave, o	convex, none):	SI. C	oncave	Slope (%):	<3%
Subregion (LRR):	(B) Columb	ia/Snake River Pla	teau L	at: 45	5.709058		Long: -119.8	316177		Datur	n:	-
Soil Map Unit Name	e: <u>s</u>	Sagehill fine sandy	loam hummocky (L	Jnit 5	5B) , 2-5% sl	opes; Non-h	nydric	NW	l classif	fication:	No	one
Are climatic / hydrol	logic condition	ons on the site typi	cal for this time of y	ear?			Yes	No	Х	(If no, expl	ain in Rema	ırks)
Are Vegetation	,	Soil	, or Hydrology	si	gnificantly dis	sturbed?	Are "Normal	Circumstanc	es" pre	sent?	Yes X	No
Are Vegetation	,	Soil	, or Hydrology	na	aturally proble	ematic?	(If needed, e	xplain any ar	nswers	in Remarks	.)	
SUMMARY OF	FINDIN	IGS – Attach s	site map show	ing :	sampling	point loc	cations, tra	ansects, ir	mport	tant featu	ures, etc.	
Hydrophytic Vegeta	ation Presen	t? \	/es I	No	X							
Hydric Soil Present	t?	Y	/es I	No	X	Is the Sam	pled Area					
Wetland Hydrology	/ Present?	Y	/es I	No	X	within a W	/etland?	Yes_		No	X	
Precipitation prior to	o fieldwork:	•	AgACIS Boardmar e two weeks prior. (ed on t	he day of fie	eldwork and	0.05
Remarks:												
Plot located in slight	tly low topog	raphic location.										
VEGETATION												

Tree Stratum (Plot size: <u>30' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species
12				That Are OBL, FACW, or FAC:(A)
3. 4.				Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum (Plot size:10' r)	<u>0%</u> = T	otal Cover		Percent of Dominant Species
1. Artemisia tridentata	35%	Yes	NOL	That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. 3. 4.				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species X 1 =
5 Herb Stratum (Plot size:5' r)	<u>35%</u> = T	otal Cover		FACW species $0 \times 2 =$ 0 FAC species $31 \times 3 =$ 93 FACU species $0 \times 4 =$ 0
1. Onopordum acanthium	65%	Yes	NOL	UPL species <u>102</u> x 5 = <u>510</u>
2. <u>Atriplex heterosperma</u>	25%	Yes	FAC*	Column Totals: <u>133</u> (A) <u>603</u> (B)
3. Chenopodium species	5% _	_ No	FAC*	Prevalence Index = $B/A = \frac{4.53}{2}$
4. <u>Centaurea solstitialis</u>	2%	No	NOL	Hydrophytic Vegetation Indicators:
5. <u>Bassia scoparia</u>	1%	No	FAC	Dominance Test is >50%
6				Prevalence Index is ≤3.0 ¹
7 8 9 1				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
0 11				¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: <u>10' r</u> _)	<u>98%</u> =T	otal Cover		be present.
<u>1.</u> 2		otal Cover		Hydrophytic Vegetation YesNo X
% Bare Ground in Herb Stratum 2%	_ % Cover of	f Biotic Crust		Present?
Remarks: * Assumed FAC. Salsola tumbleweeds present, not r	ooted in plot.			

S	OI	L
---	----	---

Profile Description	n: (Describe to the	e depth nee	eded to document	the indicator or	confirm the abse	ence of indicators	5.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remark
0-10	10YR 4/3	100					LS	
10-16	10YR 3/2	99	7.5YR 3/4	1	С	PL	SL	Less Sar
				·				
Type: C=Concentra	ation, D=Depletion,	RM=Redu	ced Matrix CS=Cove	ered or Coated Sa	and Grains.	² Location: PL=Pe	ore Lining, M=Matrix.	
Texture: S = sand;	Si = silt; C = clay; I	L = loam or	loamy. Texture Mod	difier: co = coarse	; f = fine; vf = ver	y fine; + = heavy (more clay); - = light (le	ess clay)
ydric Soil Indicat	ors: (Applicable to	o all LRRs,	unless otherwise	noted.)		Indicators for	Problematic Hydric S	Soils ³ :
Histosol (A1)			Sandy Redox (S5)		1 cm Muck	(A9) (LRR C)	
Histic Epipedor	ו (A2)		Stripped Matrix	(S6)		2 cm Muck	(A10) (LRR B)	
Black Histic (A3			Loamy Mucky N			Reduced V	. ,	
Hydrogen Sulfic	. ,		Loamy Gleyed	. ,			t Material (TF2)	
Stratified Layer	. , . ,		Depleted Matrix	. ,		Other (Exp	lain in Remarks)	
1 cm Muck (A9	, ()		Redox Dark Su	. ,		31		
	v Dark Surface (A1 ⁻	1)	Depleted Dark	()			ydrophytic vegetation	
Thick Dark Sur	. ,		Redox Depress	. ,		-	ology must be present	•,
Sandy Mucky N	Ainerai (ST)		Vernal Pools (F	.9)		unless distur	bed or problematic.	
Sandy Claved I	Matrix (SA)							
Sandy Gleyed I	. ,							
Restrictive Layer (. ,							
	. ,							
Restrictive Layer (. ,				Hyd	ric Soil Present?	Yes	NoX
Restrictive Layer(Type:	. ,				Hyd	ric Soil Present?	Yes	NoX
Restrictive Layer (Type: Depth (inches):	. ,				Hyd	ric Soil Present?	Yes	NoX
estrictive Layer (Type: Depth (inches): emarks:	. ,				Hyd	ric Soil Present?	Yes	No X
estrictive Layer (Type: Depth (inches): Remarks:	if present):				Hyd	ric Soil Present?	Yes	NoX
estrictive Layer (Type: Depth (inches): temarks: IYDROLOGY Vetland Hydrology	if present):	quired; che	ck all that apply)		Hyd		Yes cators (2 or more requ	
estrictive Layer (Type: Depth (inches): temarks: IYDROLOGY Vetland Hydrology	if present): y Indicators: minimum of one red	quired; che	ck all that apply))	Hyd	Secondary Indi		
estrictive Layer (Type: Depth (inches): emarks: IYDROLOGY Vetland Hydrology	if present): y Indicators: minimum of one red (A1)	quired; che		,	Hyd	<u>Secondary Indi</u>	cators (2 or more requ	uired)
	if present): y Indicators: minimum of one red (A1) ole (A2)	quired; che	Salt Crust (B11	12)	Hyd	Secondary Indi Water Mar Sediment I	cators (2 or more requ ks (B1) (Riverine)	uired)
	if present): y Indicators: minimum of one red (A1) ole (A2)	quired; che	Salt Crust (B11 Biotic Crust (B1) I2) brates (B13)	Hyd	Secondary Indi Water Mar Sediment I	<u>cators (2 or more requ</u> ks (B1) (Riverine) Deposits (B2) (Riverin	uired)
	if present): y Indicators: minimum of one red (A1) ble (A2)		Salt Crust (B11 Biotic Crust (B1 Aquatic Inverted Hydrogen Sulfic) I2) brates (B13)		Secondary Indi Water Mar Sediment I Drift Depos	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin sits (B3) (Riverine)	uired)
	if present): y Indicators: minimum of one red (A1) ble (A2) B1) (Nonriverine)		Salt Crust (B11 Biotic Crust (B1 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo) I2) brates (B13) de Odor (C1)		Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin bits (B3) (Riverine) Patterns (B10)	uired)
	if present): y Indicators: minimum of one red (A1) ole (A2) B1) (Nonriverine) osits (B2) (Nonriver B3) (Nonriverine)		Salt Crust (B11 Biotic Crust (B1 Aquatic Invertee Hydrogen Sulfic Oxidized Rhizo	, l2) brates (B13) de Odor (C1) spheres along Liv	ving Roots (C3)	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish B	<u>cators (2 or more requ</u> ks (B1) (Riverine) Deposits (B2) (Riverin sits (B3) (Riverine) Patterns (B10) n Water Table (C2)	<u>iired)</u> e)
Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (Surface Soil Cr	if present): y Indicators: minimum of one red (A1) ole (A2) B1) (Nonriverine) osits (B2) (Nonriver B3) (Nonriverine)	rine)	Salt Crust (B11 Biotic Crust (B1 Aquatic Invertee Hydrogen Sulfic Oxidized Rhizo	, l2) brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) duction in Tilled S	ving Roots (C3)	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bu Saturation	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8)	<u>iired)</u> e)
	if present): y Indicators: minimum of one red (A1) ble (A2) B1) (Nonriverine) bsits (B2) (Nonriver B3) (Nonriverine) acks (B6) ble on Aerial Image	rine)	Salt Crust (B11 Biotic Crust (B1 Aquatic Inverted Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re	, 12) brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) duction in Tilled S face (C7)	ving Roots (C3)	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Br Saturation Shallow Ac	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imag	<u>iired)</u> e)
	if present): y Indicators: minimum of one rea (A1) ble (A2) B1) (Nonriverine) osits (B2) (Nonriver B3) (Nonriverine) acks (B6) ble on Aerial Image Leaves (B9)	rine)	Salt Crust (B11 Biotic Crust (B1 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf	, 12) brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) duction in Tilled S face (C7)	ving Roots (C3)	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Br Saturation Shallow Ac	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin bits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imag quitard (D3)	<u>iired)</u> e)
Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil Water-Stained Vetland Hydrology	if present): y Indicators: minimum of one red (A1) ble (A2) B1) (Nonriverine) bits (B2) (Nonriverine) bits (B6) ble on Aerial Image Leaves (B9) s:	rine)	Salt Crust (B11 Biotic Crust (B1 Aquatic Invertee Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Other (Explain i	, 12) brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) duction in Tilled S face (C7)	ving Roots (C3)	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Br Saturation Shallow Ac	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin bits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imag quitard (D3)	<u>iired)</u> e)
Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Vetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Deposits (Surface Soil Cr Inundation Visil Water-Stained Surface Water Press	if present): y Indicators: minimum of one red (A1) ble (A2) B1) (Nonriverine) bits (B2) (Nonriverine) bits (B2) (Nonriverine) acks (B6) ble on Aerial Image Leaves (B9) s: sent? Yes_	rine) ery (B7)	Salt Crust (B11 Biotic Crust (B1 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Other (Explain i) J2) brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) duction in Tilled S face (C7) in Remarks)	ving Roots (C3)	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bi Saturation Shallow Ac FAC-Neutr	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin bits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imag quitard (D3)	<u>iired)</u> e)
Restrictive Layer (Type: Depth (inches): Remarks: TYDROLOGY Vetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil	if present): y Indicators: minimum of one red (A1) ble (A2) B1) (Nonriverine) osits (B2) (Nonriver B3) (Nonriverine) acks (B6) ble on Aerial Image Leaves (B9) s: sent? Yes	rine) ery (B7)	Salt Crust (B11 Biotic Crust (B1 Aquatic Inverted Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Other (Explain i No X No X) (2) brates (B13) de Odor (C1) spheres along Live educed Iron (C4) duction in Tilled S face (C7) in Remarks) Depth (inches):	ving Roots (C3) Soils (C6)	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bi Saturation Shallow Ac FAC-Neutr	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imag uitard (D3) al Test (D5)	<u>iired)</u> e)
Restrictive Layer (Type: Depth (inches): Remarks: AryDROLOGY Vetland Hydrology Vetla	if present): y Indicators: minimum of one red (A1) ble (A2) B1) (Nonriverine) osits (B2) (Nonriver B3) (Nonriverine) racks (B6) ble on Aerial Image Leaves (B9) S: sent? Yes_ rin? Yes_ ? Yes_ fringe)	rine) ery (B7)	Salt Crust (B11 Biotic Crust (B1 Aquatic Inverted Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Other (Explain i No X No X No X) I2) brates (B13) de Odor (C1) spheres along Live educed Iron (C4) duction in Tilled S face (C7) in Remarks) Depth (inches): Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6) 	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Br Saturation Shallow Ac FAC-Neutr	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverin bits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imag quitard (D3) al Test (D5)	uired) e) ery (C9)
Restrictive Layer (Type: Depth (inches): Remarks: TYDROLOGY Vetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil Water-Stained Surface Water Present Surface Water Present Surface Water Present Surface Capillary f	if present): y Indicators: minimum of one red (A1) ble (A2) B1) (Nonriverine) osits (B2) (Nonriver B3) (Nonriverine) racks (B6) ble on Aerial Image Leaves (B9) S: sent? Yes_ rin? Yes_ ? Yes_ fringe)	rine) ery (B7)	Salt Crust (B11 Biotic Crust (B1 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Other (Explain i No X No X) I2) brates (B13) de Odor (C1) spheres along Live educed Iron (C4) duction in Tilled S face (C7) in Remarks) Depth (inches): Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6) 	Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Br Saturation Shallow Ac FAC-Neutr	cators (2 or more requ ks (B1) (Riverine) Deposits (B2) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imag uitard (D3) al Test (D5)	uired) e) ery (C9)

Project/Site: Percheron		City	/County: Boa	rdman/ Morrow Count	у	Sampling Date	e: 3/31/2022
Applicant/Owner: Birch Infra	structure, LLC			. 9	State: OR	Sampling P	oint: 2
Investigator(s): Sonya Tem	oleton, Margret Harburg, Stacey	Reed, PWS	Section, Tow	nship, Range: Sec. 28	, T.3N., R.24E., W	.M.	
Landform (hillslope, terrace, etc.)	Terrace			_ocal relief (concave, co	onvex, none): SI. C	concave S	iope (%): <3%
Subregion (LRR): (B) Colum	bia/Snake River Plateau	Lat: 45.7	09065	Long: -119.81	15667	Datum:	NAD83
Soil Map Unit Name:	Sagehill fine sandy loam hu	mmocky (Unit 55B	3) , 2-5% slopes	; Non-hydric	NWI classi	ification:	None
Are climatic / hydrologic condition	ions on the site typical for th	is time of year?		Yes	<u>No X</u>	(If no, explair	n in Remarks)
Are Vegetation	,Soil, or Hyd	rologysign	nificantly disturb	ed? Are "Normal C	Circumstances" pre	esent?	Yes X No
Are Vegetation	,Soil, or Hyd	rologynatu	urally problema	ic? (If needed, ex	plain any answers	in Remarks.)	
SUMMARY OF FIND	NGS – Attach site ma	ap showing sa	ampling po	nt locations, tra	nsects, impor	tant feature	es, etc.
Hydrophytic Vegetation Prese	nt? Yes	No	X				
Hydric Soil Present?	Yes	No	X Ist	ne Sampled Area			
Wetland Hydrology Present?	Yes	No	X wit	nin a Wetland?	Yes	No	<u><</u>
Precipitation prior to fieldwork:	According to the AgACIS	Boardman weath	er station, 0.0	0 inches of precipitatio	on was received or	n the day of fiel	dwork and 0.05
	inches during the two we	eks prior. Conditio	ons for March a	e wetter than normal.			
Remarks:							

Located within slightly low topographic location.

Tree Stratum (Plot size: <u>30' r</u>) 1	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1(A)
3. 4. 5. 9. 9. 1. Artemisia tridentata	 = T 	Total Cover Yes		Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)
2. 3.				Prevalence Index worksheet:
4		 Total Cover		OBL species0 $x 1 =$ 0FACW species0 $x 2 =$ 0FAC species70 $x 3 =$ 210
Herb Stratum (Plot size: <u>5'</u> r) 1. <u>Atriplex heterosperma</u>	60%	Yes	FAC*	FACU species 0 x 4 = 0 UPL species 33 x 5 = 165
Bassia scoparia Onopordum acanthium Bromus tectorum	<u>10%</u> 10% _ 3%	<u>No</u> No No	FAC NOL NOL	Column Totals: <u>103</u> (A) <u>375</u> (B) Prevalence Index = B/A = <u>3.64</u> Hydrophytic Vegetation Indicators:
5. 6. 7.				Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting
8. 9. 1				data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
11 <u>Woody Vine Stratum</u> (Plot size: <u>10' r</u> _)		Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present.
1. 2. % Bare Ground in Herb Stratum		Total Cover of Biotic Crust		Hydrophytic Vegetation YesNoX Present?
Remarks: *Assumed FAC.				

SOIL								
Profile Descript	ion: (Describe to th	e depth nee	eded to document th	he indicator or	confirm the abs	ence of indicators	5.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks
0-10	10YR 4/3	100					LS	
10-16	10YR 3/2	99	7.5YR 3/4	1	С	PL	SL .	Less San
							·	
							·	
			·				·	
							·	
							<u> </u>	
	•		ced Matrix CS=Cover				ore Lining, M=Matrix.	
Texture: S = sar	nd; Si = silt; C = clay;	L = loam or	loamy. Texture Modi	ifier: co = coarse	e; f = fine; vf = ve	y fine; + = heavy (more clay); - = light (less	clay)
ydric Soil Indic	ators: (Applicable	to all LRRs,	unless otherwise n	-			Problematic Hydric Soi	ls ³ :
Histosol (A1)			Sandy Redox (S	,			(A9) (LRR C)	
Histic Epipeo			Stripped Matrix (. ,			(A10) (LRR B)	
Black Histic (. ,		Loamy Mucky M	. ,		Reduced V	()	
Hydrogen Su	/ers (A5) (LRR C)		Loamy Gleyed M Depleted Matrix				t Material (TF2) lain in Remarks)	
1 cm Muck (/			Depleted Matinx Redox Dark Sur	. ,				
	low Dark Surface (A1	11)	Depleted Dark S	. ,		³ Indicators of h	ydrophytic vegetation an	d
		,	Redox Depressi	. ,			ology must be present,	-
 Thick Dark S	Surface (A12)							
Thick Dark S	()			. ,		unless distur	•••	
Sandy Mucky	surface (A12) y Mineral (S1) ed Matrix (S4)		Vernal Pools (F9	. ,		unless distur	bed or problematic.	
Sandy Mucky	y Mineral (S1) ed Matrix (S4)			. ,		unless distur	•••	
Sandy Mucky Sandy Gleye Restrictive Laye	y Mineral (S1) ed Matrix (S4)			. ,		unless distur	•••	
Sandy Mucky Sandy Gleye Restrictive Laye Type:	y Mineral (S1) ed Matrix (S4) rr (if present):			. ,	Hv		bed or problematic.	No X
Sandy Muck Sandy Gleye Restrictive Laye Type: Depth (inches):	y Mineral (S1) ed Matrix (S4) rr (if present):			. ,	Нус	unless distur	bed or problematic.	No X
Sandy Muck Sandy Gleye Restrictive Laye Type: Depth (inches):	y Mineral (S1) ed Matrix (S4) rr (if present):			. ,	Ну		bed or problematic.	No X
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches):	y Mineral (S1) ed Matrix (S4) rr (if present):			. ,	Ну		bed or problematic.	No X
Sandy Muck Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks:	y Mineral (S1) ed Matrix (S4) rr (if present):			. ,	Ну		bed or problematic.	No X
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOGN	y Mineral (S1) ed Matrix (S4) rr (if present): y Y pgy Indicators:		Vernal Pools (F9	. ,	Ну	Iric Soil Present?	bed or problematic.	
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks:	y Mineral (S1) ed Matrix (S4) rr (if present):	equired; cher	Vernal Pools (F9	. ,	Ну	Iric Soil Present?	bed or problematic.	
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOGN	y Mineral (S1) ed Matrix (S4) rr (if present): S Y pgy Indicators: s (minimum of one re	equired; che	Vernal Pools (F9	()	Hyd	Iric Soil Present?	bed or problematic.	
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrolo	y Mineral (S1) ed Matrix (S4) rr (if present): Y pgy Indicators: s (minimum of one re er (A1)	equired; che	Vernal Pools (F9	2)	Ну	Iric Soil Present?	Yes Cators (2 or more require	
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A	y Mineral (S1) ed Matrix (S4) rr (if present): y y pgy Indicators: s (minimum of one re er (A1) Fable (A2) N3)	equired; cher	Vernal Pools (F9	2) 2) rates (B13)	Ну	Iric Soil Present?	Yes <u>Yes</u> <u>cators (2 or more require</u> ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine)	
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks	y Mineral (S1) ed Matrix (S4) rr (if present): y y y y y y y y y y y y y y y y y y y	•	Vernal Pools (F9	2) 2) rates (B13) e Odor (C1)		Iric Soil Present? Secondary Indi Water Mar Sediment I Drift Depos	Yes Cators (2 or more require ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10)	
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Vetland Hydrolo Primary Indicator: Surface Wate High Water T Saturation (A Water Marks Sediment De	y Mineral (S1) ed Matrix (S4) rr (if present): y y y y y y y y y y y y y y y y y y y	erine)	Vernal Pools (F9 Vernal Pools (F9 Salt Crust (B11) Biotic Crust (B11) Biotic Crust (B12 Aquatic Inverteb Hydrogen Sulfid Oxidized Rhizos	2) 2) prates (B13) e Odor (C1) spheres along Liv		Iric Soil Present? Secondary Indi Water Mar Sediment I Drift Depos Drainage F Dry-Seaso	Yes Yes cators (2 or more require ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2)	
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Vetland Hydrold Primary Indicator: Surface Wate High Water Tarks Saturation (A Water Marks Sediment De Drift Deposite	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y y y y y y y y y	erine)	Vernal Pools (F9	2) prates (B13) e Odor (C1) spheres along Linduced Iron (C4)	ving Roots (C3)	Iric Soil Present?	Yes Yes <u>cators (2 or more require</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8)	<u></u>
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y ogy Indicators: s (minimum of one re er (A1) Table (A2) A3) s (B1) (Nonriverine) eposits (B2) (Nonriver s (B3) (Nonriverine) Cracks (B6)	erine)	Vernal Pools (F9 Vernal Pools (F9 	2) rates (B13) e Odor (C1) spheres along Lir duced Iron (C4) fuction in Tilled S	ving Roots (C3)	Iric Soil Present?	Yes Cators (2 or more require ks (B1) (Riverine) Deposits (B2) (Riverine) Deters (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery	<u></u>
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Vetland Hydrolo Primary Indicator Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y y y y y y y y y	erine)	Vernal Pools (F9 	2) prates (B13) e Odor (C1) spheres along Liv duced Iron (C4) duction in Tilled S ace (C7)	ving Roots (C3)	Iric Soil Present?	Yes <u>Yes</u> <u>cators (2 or more require</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery quitard (D3)	<u></u>
Sandy Mucky Sandy Gleye Type: Depth (inches): Remarks: Yetland Hydrold Primary Indicator: Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V Water-Staine	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y y y y y y y y y	erine)	Vernal Pools (F9 Vernal Pools (F9 	2) prates (B13) e Odor (C1) spheres along Liv duced Iron (C4) duction in Tilled S ace (C7)	ving Roots (C3)	Iric Soil Present?	Yes Cators (2 or more require ks (B1) (Riverine) Deposits (B2) (Riverine) Deters (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery	<u></u>
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Wate High Water 1 Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V Water-Staine	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y y y y y y y y y	ery (B7)	Vernal Pools (F9	2) rates (B13) e Odor (C1) spheres along Linduced Iron (C4) fuction in Tilled State (C7) n Remarks)	ving Roots (C3) Soils (C6)	Iric Soil Present?	Yes <u>Yes</u> <u>cators (2 or more require</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery quitard (D3)	<u></u>
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Netland Hydrolo Primary Indicator Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V Water-Staine	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y y y y y y y y y	erine) ery (B7)	Vernal Pools (F9 	2) prates (B13) e Odor (C1) spheres along Linduced Iron (C4) fuction in Tilled Stace (C7) in Remarks) Depth (inches):	ving Roots (C3) Soils (C6)	Iric Soil Present?	Yes <u>Yes</u> <u>cators (2 or more require</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery juitard (D3) al Test (D5)	<u></u>
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Wetland Hydrolo Primary Indicator Surface Wate High Water Ta Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V Water-Staine Field Observatio Surface Water P Water Table Pres	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y y y y y y y y y	ery (B7)	Vernal Pools (F9 	2) prates (B13) e Odor (C1) spheres along Lind duced Iron (C4) duction in Tilled S ace (C7) n Remarks) Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6)	Iric Soil Present?	Yes <u>reators (2 or more require</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3) al Test (D5) ydrology Present?	<u>d)</u>
Sandy Mucky Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Wetland Hydrolo Primary Indicator Surface Water High Water Ta Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V Water-Staine Field Observatio Surface Water P	y Mineral (S1) ed Matrix (S4) r (if present): y y y y y y y y y y y y y	erine) ery (B7)	Vernal Pools (F9 	2) prates (B13) e Odor (C1) spheres along Linduced Iron (C4) fuction in Tilled Stace (C7) in Remarks) Depth (inches):	ving Roots (C3) Soils (C6)	Iric Soil Present?	Yes <u>Yes</u> <u>cators (2 or more require</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery juitard (D3) al Test (D5)	<u></u>

Project/Site: Pe	ercheron		City/Coun	ty: Boardman/ Morro	ow County	Sampling Date: 10/1	4/2021
Applicant/Owner:	Birch Infrastructure, LLC				State: OR	Sampling Point	3
Investigator(s):	Sonya Templeton and Marg	ret Harburg	Sect	ion, Township, Range	e: Sec. 28, T.3N., R.24E.	, W.M.	
Landform (hillslope, t	errace, etc.): Terrace			Local relief (c	concave, convex, none):	Concave Slope	e (%): <3%
Subregion (LRR):	(B) Columbia/Snake River P	lateau L	at: 45.715733	. Long	g: -119.820386	Datum: NAD	083
Soil Map Unit Name	e: Quincy loamy fine	e sand (Unit 40C) , 2-	12% slopes;	Non-hydric	NWI cla	assification:	None
Are climatic / hydrol	logic conditions on the site ty	pical for this time of y	/ear?	Ye	s <u>X</u> No	(If no, explain in	Remarks)
Are Vegetation	,Soil	, or Hydrology	significant	ly disturbed? Are '	"Normal Circumstances"	present? Ye	es <u>X</u> No
Are Vegetation	,Soil	, or Hydrology	naturally p	oroblematic? (If ne	eeded, explain any answ	ers in Remarks.)	
SUMMARY OF	FINDINGS – Attach	site map show	ing sampl	ing point locatio	ons, transects, imp	ortant features,	etc.
Hydrophytic Vegeta	ation Present?	Yes I	No X	_			
Hydric Soil Present	t?	Yes I	No <u>X</u>	Is the Sampled	Area		
Wetland Hydrology	Present?	Yes I	No X	within a Wetlan	id? Yes	No <u>X</u>	_
Precipitation prior to	•	0		ion, 0.00 inches of p	recipitation was received	on the day of fieldwo	rk and 0.14
	inches during	the two weeks prior.					
Remarks:							

Lowest topographic location within undulating topography.

Tree Stratum (Plot size: 30' r)	Absolute	Dominant	Indicator	Dominance Test worksheet:
	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0(A)
3.				Total Number of Dominant
4.				Species Across All Strata: 2 (B)
	0% =	Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)				Percent of Dominant Species
1. Artemisia tridentata	5%	Yes	NOL	That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2.				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4				OBL species 0 x 1 = 0
5				FACW species x 2 =0
Herb Stratum (Plot size: ^{5' r})	=	Total Cover		FAC species1 $x 3 =$ 3FACU species90 $x 4 =$ 360
1. Salsola tragus	80%	Yes	FACU	UPL species 7 x 5 = 35
2. Sisymbrium altissimum	10%	No	FACU	Column Totals: 98 (A) 398 (B)
3. Bromus tectorum	2%	No	NOL	Prevalence Index = $B/A = \frac{4.06}{2}$
4. Cleomella species	1%	No	FAC*	Hydrophytic Vegetation Indicators:
5				Dominance Test is >50%
6.				Prevalence Index is ≤3.0 ¹
7.				Morphological Adaptations ¹ (Provide supporting
8.				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				
11				¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: <u>10' r</u> _)	93% =	Total Cover		be present.
1.				
2				Hydrophytic
	= 0%	Total Cover		Vegetation Yes <u>No</u> X
% Bare Ground in Herb Stratum 7%	% Cover of	of Biotic Crust		Present?
Remarks: *Assumed FAC.				

SOIL Sampling Point: 3 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** Loc² ³Texture (inches) Color (moist) % Color (moist) % Type¹ Remarks 0-16 10YR 3/2 100 S Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. ³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay) Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Sandy Redox (S5) ____ 1 cm Muck (A9) (**LRR C**) Histosol (A1) ____ 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present, Sandy Mucky Mineral (S1) Vernal Pools (F9) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Х Depth (inches): Hydric Soil Present? Yes No Remarks[.] HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Х Depth (inches): No х ____ Water Table Present? Depth (inches): >16" Wetland Hydrology Present? Yes Saturation Present? No Х Depth (inches): >16" Yes _____ No X Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Soils very dry throughout.

Project/Site: Pe	rcheron		City/County:	Boardman/ Morrow County	Sampling Date: 10/14/2021
Applicant/Owner:	Birch Infrastructure, LLC			State: OR	Sampling Point: 4
Investigator(s):	Sonya Templeton and Margr	et Harburg	Section,	Township, Range: Sec. 28, T.3N., R.2	24E., W.M.
Landform (hillslope, to	errace, etc.): Terrace			Local relief (concave, convex, none)	: Concave Slope (%): <3%
Subregion (LRR):	(B) Columbia/Snake River P	lateau L	at: 45.715492	Long: -119.821023	Datum: NAD83
Soil Map Unit Name	. Quincy loamy fine	sand (Unit 40C) , 2-	12% slopes; Non	-hydric NV	VI classification: None
Are climatic / hydrol	ogic conditions on the site ty	pical for this time of y	/ear?	Yes X No	(If no, explain in Remarks)
Are Vegetation	,Soil	, or Hydrology	significantly d	sturbed? Are "Normal Circumstan	ces" present? Yes X_No
Are Vegetation	,Soil	, or Hydrology	naturally prob	lematic? (If needed, explain any a	answers in Remarks.)
SUMMARY OF	FINDINGS – Attach	site map show	ving sampling	point locations, transects,	important features, etc.
Hydrophytic Vegeta	ation Present?	Yes	No X		
Hydric Soil Present	?	Yes	No X	Is the Sampled Area	
Wetland Hydrology	Present?	Yes	No X	within a Wetland? Yes	No <u>X</u>
Precipitation prior to	0	he AgACIS Boardman the two weeks prior.		0.00 inches of precipitation was reco	eived on the day of fieldwork and 0.14
Remarks:					

Plot 4 located in low topographic location in area with undulating topography.

Tree Stratum (Plot size:30'r) % Cover Species? Status Number of Dominant Species 1.		Absolute	Dominant	Indicator	Dominance Test worksheet:
2.	Tree Stratum (Plot size: <u>30' r</u>)	% Cover	Species?	Status	Number of Dominant Species
3.					That Are OBL, FACW, or FAC:0(A)
4.					Total Number of Dominant
Sapling/Shrub Stratum (Plot size:10' r)	4.				
1. Artemisia tridentata 20% Yes NOL That Are OBL, FACW, or FAC: 0% (A/B) 2.		0% = 1	Total Cover		
2.	Sapling/Shrub Stratum (Plot size: <u>10' r</u>)				Percent of Dominant Species
3.	1. Artemisia tridentata	20%	Yes	NOL	That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
5.					
5.	4.				OBL species 0 x 1 = 0
Herb Stratum $(Plot size: 5' r)$ 20% = Total CoverFAC species $0 \times 3 = 0$ 1.Bromus tectorum 50% YesNOL2.Sisymbrium altissimum 20% YesFACU3.Salsola tragus 10% NoFACU4.Lactuca serriola 3% NoFACU567891011208910112Moody Vine Stratum(Plot size: $10^{\circ} r$)12 <td< td=""><td>5.</td><td></td><td></td><td></td><td>· · · · —</td></td<>	5.				· · · · —
2. Sisymbrium altissimum 20% Yes FACU Column Totals: 103 (A) 482 (B) 3. Salsola tragus 10% No FACU Prevalence Index = B/A = 468 4. Lactuca serriola 3% No FACU Hydrophytic Vegetation Indicators: 5.	Herb Stratum (Plot size: <u>5'</u> r)	20% = 1	Total Cover		
3. Salsola tragus 10% No FACU Prevalence Index = B/A = 4.68 4. Lactuca serriola 3% No FACU Hydrophytic Vegetation Indicators: 5.	1. Bromus tectorum	50%	Yes	NOL	UPL species 70 x 5 = 350
3. Satisfield angles 10 %	2. Sisymbrium altissimum	20%	Yes	FACU	Column Totals:(A)(B)
5.	3. Salsola tragus	10%	No	FACU	Prevalence Index = B/A = 4.68
6.	4. Lactuca serriola	3%	No	FACU	Hydrophytic Vegetation Indicators:
7.	5				Dominance Test is >50%
8.	6				
9 Problematic Hydrophytic Vegetation ¹ (Explain) 10 11 B3% = Total Cover Woody Vine Stratum (Plot size:10' r) 1 2 O% = Total Cover % Bare Ground in Herb Stratum % Cover of Biotic Crust Problematic Hydrophytic Vegetation ¹ (Explain) 1 Hydrophytic Vegetation Vegetation Methand hydrology must be present. Hydrophytic Vegetation Yes NoX Present?	7				Morphological Adaptations ¹ (Provide supporting
10.	8				. ,
11.	9				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 10' r _) 1.	10				
Woody Vine Stratum (Plot size: 10' r _) 1.	11				^I Indicators of hydric soil and wetland hydrology must
2.			Fotal Cover		be present.
0% = Total Cover Vegetation Yes No X % Bare Ground in Herb Stratum 17% % Cover of Biotic Crust Present?					Hydrophytic
% Bare Ground in Herb Stratum 17% % Cover of Biotic Crust Present?		0% = 1	Total Cover		
	% Bare Ground in Herb Stratum 17%				
IN THE REPORT OF T	Remarks:				

SOIL Sampling Point: 4 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** Loc² ³Texture (inches) Color (moist) % Color (moist) % Type¹ Remarks 0-16 10YR 3/2 100 S Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. ³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay) Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Sandy Redox (S5) ____ 1 cm Muck (A9) (**LRR C**) Histosol (A1) ____ 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present, Sandy Mucky Mineral (S1) Vernal Pools (F9) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Х Depth (inches): Hydric Soil Present? Yes No Remarks[.] HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Х Depth (inches): No х ____ Water Table Present? Depth (inches): >16" Wetland Hydrology Present? Yes Saturation Present? No Х Depth (inches): >16" Yes _____ No X Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Soils very dry throughout.

Project/Site: Percheron			C	ity/County:	Boardman/ M	lorrow County	Sa	ampling Da	ate: 3/31/2022	
Applicant/Owner: Birch Infra	astructure, LLC					State: C	<u>)</u> B	Sampling	Point:	5
Investigator(s): Sonya Ten	npleton, Margret Harbur	g, Stacey Reed, PWS		Section,	Township, Ra	nge: Sec. 28, T.3N.	, R.24E., W.M			
Landform (hillslope, terrace, etc.): Terrace				Local relie	ef (concave, convex, n	one): Conc	ave .	Slope (%): <3	%
Subregion (LRR): (B) Colun	nbia/Snake River Pla	iteau L	at: 45	5.708632	L	_ong: -119.816632		Datun	n: NAD83	
Soil Map Unit Name:	Sagehill fine sandy	loam hummocky (l	Jnit 5	5B) , 2-5% sl	opes; Non-hy	dric	NWI classific	ation:	None	
Are climatic / hydrologic cond	itions on the site typ	ical for this time of y	/ear?			Yes	No <u>X</u> (lf no, expl	ain in Remarks	;)
Are Vegetation	_,Soil	, or Hydrology	si	gnificantly di	sturbed? A	Are "Normal Circums	stances" prese	ent?	Yes <u>X</u> No	ວ ເ
Are Vegetation	,Soil	, or Hydrology	na	aturally probl	ematic? (If needed, explain a	ny answers in	Remarks.)	
SUMMARY OF FIND	INGS – Attach	site map show	ving :	sampling	point loca	tions, transect	s, importa	nt featu	ires, etc.	
Hydrophytic Vegetation Pres	ent?	Yes	No _	Х						
Hydric Soil Present?		Yes	No _	Х	Is the Samp	led Area				
Wetland Hydrology Present?		Yes	No _	X	within a Wet	tland? Y	'es	No	X	
Precipitation prior to fieldwork	•	e AgACIS Boardmar e two weeks prior. (of precipitation was than normal.	received on th	ne day of f	ieldwork and 0	.05
Remarks:										

Plot 5 located within ephemeral swale. No defined bank bed or OHWM present.

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30' r</u>)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: 0	(A)
2					
				Total Number of Dominant	
4		T (10		Species Across All Strata: 2	(B)
Sapling/Shrub Stratum (Plot size:10' r		= Total Cover		Percent of Dominant Species	
1.				That Are OBL, FACW, or FAC: 0%	(A/B)
2				Prevalence Index worksheet: Total % Cover of: Multiply by:	
4.				$\frac{1}{\text{OBL species}} 0 \text{x1} = 0$	-
5.				FACW species x 2 = 0	
Herb Stratum (Plot size: 5' r _)	0%	= Total Cover		FAC species 0 x 3 = 0 FACU species 46 x 4 = 184	
1. Centaurea solstitialis	50%	Yes	NOL	UPL species 52 x 5 = 260	
2. Sisymbrium altissimum	45%	Yes	FACU	Column Totals: 98 (A) 444	(B)
3. Salsola tragus	1%	No	FACU	Prevalence Index = $B/A = \frac{4.53}{2}$	
4. Bromus tectorum	1%	No	NOL	Hydrophytic Vegetation Indicators:	
5. <u>Erodium cicutarium</u>	1%	No	NOL	Dominance Test is >50%	
6				Prevalence Index is ≤3.0 ¹	
7				Morphological Adaptations ¹ (Provide supporting	ng
8				data in Remarks or on a separate sheet)	
9.				Problematic Hydrophytic Vegetation ¹ (Explain)
10					
11				¹ Indicators of hydric soil and wetland hydrology m	ust
Woody Vine Stratum (Plot size: <u>10' r</u>		= Total Cover		be present.	
1.					
2				Hydrophytic	
	0%	= Total Cover		Vegetation Yes <u>No</u> X	
% Bare Ground in Herb Stratum 2%	% Cave	r of Biotic Crust		Present?	

SOIL						Sampling Point:	5	
Profile Description: (Des	scribe to the depth	needed to documen	t the indicator or o	confirm the abs	ence of indicators.			
Depth	Matrix		Redox Features					
(inches) Color ((moist) %	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks	
<u>0-16</u> <u>10YI</u>	R 4/3 100					LS _		
						=		
Type: C=Concentration, I	D=Depletion, RM=Re	duced Matrix CS=Co	vered or Coated Sa	and Grains.	² Location: PL=Por	e Lining, M=Matrix.		
Гехture: S = sand; Si = si	lt; C = clay; L = loam	or loamy. Texture Mo	odifier: co = coarse	; f = fine; vf = ve	ry fine; + = heavy (m	ore clay); - = light (less o	clay)	
ydric Soil Indicators: (A Histosol (A1)	Applicable to all LR	Rs, unless otherwise Sandy Redox	-		Indicators for P 1 cm Muck (roblematic Hydric Soils A9) (LRR C)	s ³ :	
Histic Epipedon (A2)		Stripped Matri	ix (S6)			A10) (LRR B)		
,		Loamy Mucky	Loamy Mucky Mineral (F1)			Reduced Vertic (F18)		
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2		d Matrix (F2)		Red Parent Material (TF2)				
	(LRR C)	Depleted Mat	rix (F3)		Other (Expla	in in Remarks)		
1 cm Muck (A9) (LRR	D)	Redox Dark S	urface (F6)					
Depleted Below Dark	Surface (A11)	Depleted Darl	surface (F7)		³ Indicators of hy	drophytic vegetation and	l	
Thick Dark Surface (A12)		Redox Depres	Redox Depressions (F8)		wetland hydrology must be present,			
	(\$1)	Vernal Pools	(F9)		unless disturbe	ed or problematic.		
Sandy Mucky Mineral	(31)		· · ·					
Sandy Mucky Mineral	. ,							
Sandy Gleyed Matrix	(S4)							
Sandy Gleyed Matrix	(S4)							
Sandy Gleyed Matrix estrictive Layer (if pres Type:	(S4)			Ну	dric Soil Present?	Yes	No X	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches):	(S4)			Ну	dric Soil Present?	Yes	No X	
Sandy Gleyed Matrix Restrictive Layer (if pres Type:	(S4)			Ну	dric Soil Present?	Yes	No <u>X</u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks:	(S4)			Ну	dric Soil Present?	Yes	No <u>X</u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: IYDROLOGY	(S4) ent):			Ну	dric Soil Present?	Yes	No <u>X</u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: YDROLOGY /etland Hydrology Indic	(S4) ent):			Ну	dric Soil Present?	Yes	No X	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: YDROLOGY retland Hydrology Indic	(S4) ent):			Ну		Yes		
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: YDROLOGY etland Hydrology Indic	(S4) ent):			Ну	Secondary Indica			
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: YDROLOGY retland Hydrology Indic rimary Indicators (minimu	(S4) ent): ators: um of one required; c	heck all that apply)	1)	Ну	Secondary Indica	ators (2 or more required		
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: YDROLOGY /etland Hydrology Indic rimary Indicators (minimu _Surface Water (A1)	(S4) ent): ators: um of one required; c	heck all that apply) Salt Crust (B1 Biotic Crust (E	1)	Ну	Secondary Indica Water Marks Sediment De	ators (2 or more required ; (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine)		
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: YDROLOGY /etland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No	(S4) ent): ators: um of one required; c) onriverine)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul	1) 312) ebrates (B13) fide Odor (C1)		Secondary Indica Water Marks Sediment De Drift Deposit	ators (2 or more required ; (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10)		
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PDROLOGY /etland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B	(S4) ent): ators: um of one required; c) onriverine) 2) (Nonriverine)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul Oxidized Rhiz	1) 312) ebrates (B13) fide Odor (C1) ospheres along Liv		Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season	ators (2 or more required s (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2)		
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: YDROLOGY fetland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B Drift Deposits (B3) (No	(S4) ent): ators: um of one required; c) onriverine) 2) (Nonriverine) onriverine)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F	1) 312) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4)	ring Roots (C3)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur	ators (2 or more required ; (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8)	<u> </u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PDROLOGY Vetland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B Drift Deposits (B3) (No Surface Soil Cracks (B	(S4) ent): ators: im of one required; c) onriverine) 2) (Nonriverine) onriverine) 36)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R	1) B12) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S	ring Roots (C3)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V	ators (2 or more required (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery	<u> </u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PYDROLOGY /etland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B Drift Deposits (B3) (No Surface Soil Cracks (f Inundation Visible on J	(S4) ent): ators: um of one required; c) onriverine) 2) (Nonriverine) onriverine) 36) Aerial Imagery (B7)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S rface (C7)	ring Roots (C3)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu	ators (2 or more required is (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery itard (D3)	<u> </u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PDROLOGY Vetland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B Drift Deposits (B3) (No Surface Soil Cracks (B	(S4) ent): ators: um of one required; c) onriverine) 2) (Nonriverine) onriverine) 36) Aerial Imagery (B7)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S rface (C7)	ring Roots (C3)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V	ators (2 or more required is (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery itard (D3)	<u> </u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PyDROLOGY /etland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B Drift Deposits (B3) (No Surface Soil Cracks (f Inundation Visible on Water-Stained Leaves	(S4) ent): ators: um of one required; c) onriverine) 2) (Nonriverine) onriverine) 36) Aerial Imagery (B7)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S rface (C7)	ring Roots (C3)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu	ators (2 or more required is (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery itard (D3)	<u> </u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PYDROLOGY /etland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B Drift Deposits (B3) (No Surface Soil Cracks (B Inundation Visible on Water-Stained Leaves ield Observations:	(S4) ent): ators: im of one required; c) onriverine) 2) (Nonriverine) 2) (Nonriverine) 36) Aerial Imagery (B7) 3 (B9)	heck all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S rface (C7)	ring Roots (C3)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu	ators (2 or more required is (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery itard (D3)	<u> </u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PYDROLOGY /etland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B3) Water Marks (B1) (No Sediment Deposits (B3) (No Surface Soil Cracks (f Inundation Visible on Water-Stained Leaves ield Observations: Surface Water Present?	(S4) ent): ators: im of one required; c) onriverine) 2) (Nonriverine) 2) (Nonriverine) 36) Aerial Imagery (B7) 3 (B9)	heck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su Other (Explain NoX	1) ebrates (B13) fide Odor (C1) ospheres along Liv reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks)	ring Roots (C3)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu FAC-Neutral	ators (2 or more required is (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery itard (D3)	<u> </u>	
Sandy Gleyed Matrix Sandy Gleyed Matrix Sestrictive Layer (if pressons) Depth (inches): Depth	(S4) ent): ators: im of one required; c porriverine) 2) (Nonriverine) 36) Aerial Imagery (B7) s (B9) Yes Yes Yes	heck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Oxidized Rhiz	1) 312) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches):	ring Roots (C3) Soils (C6)	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu FAC-Neutral	ators (2 or more required (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery itard (D3) Test (D5) drology Present?	<u> </u>	
Sandy Gleyed Matrix estrictive Layer (if pres Type: Depth (inches): emarks: PYDROLOGY /etland Hydrology Indic rimary Indicators (minimu Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) (No Sediment Deposits (B3) Water Aarks (B1) (No Sediment Deposits (B3) (No Surface Soil Cracks (I Inundation Visible on Water-Stained Leaves ield Observations: Surface Water Present? Vater Table Present?	(S4) ent): ators: im of one required; c porriverine) 2) (Nonriverine) 2) (Nonriverine) 36) Aerial Imagery (B7) s (B9) Yes Yes Yes Yes Yes	heck all that apply)Salt Crust (B1Biotic Crust (B1Aquatic InvertHydrogen SulOxidized RhizOxidized RhizPresence of FRecent Iron RThin Muck SuOther (ExplainNoXNoXNoXNoXNoXNoXNoX	1) B12) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches): Depth (inches):	ring Roots (C3) soils (C6) 	Secondary Indica Water Marks Sediment De Drift Deposit Drainage Pa Dry-Season Crayfish Bur Saturation V Shallow Aqu FAC-Neutral	ators (2 or more required (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery itard (D3) Test (D5) drology Present?	<u>1)</u> (C9)	

Project/Site: Percheron		City/County:	Boardman/ Morrow County	Sampling Date: 3/31/2022	
Applicant/Owner: Birch Infras	structure, LLC		. State: (OR Sampling Point:	6
Investigator(s): Sonya Temp	leton, Margret Harburg, Stacey F	Reed, PWS Secti	on, Township, Range: Sec. 28, T.	3N., R.24E., W.M.	
Landform (hillslope, terrace, etc.):	Terrace		Local relief (concave, convex, r	none): Concave Slope (%): <3	%
Subregion (LRR): (B) Columbi	a/Snake River Plateau	Lat: 45.708092	Long: 119.815915	Datum: NAD83	
Soil Map Unit Name:	Sagehill fine sandy loam hui	mmocky (Unit 55B) , 2-5% s	slopes; Non-hydric	NWI classification: None	
Are climatic / hydrologic conditi	ons on the site typical for thi	is time of year?	Yes	No X (If no, explain in Remarks	3)
Are Vegetation	,Soil, or Hydr	ologysignificantly d	isturbed? Are "Normal Circum	stances" present? Yes X No	o
Are Vegetation	,Soil, or Hydr	ologynaturally prob	lematic? (If needed, explain a	any answers in Remarks.)	
SUMMARY OF FIND	NGS – Attach site m	ap showing samplin	g point locations, transed	cts, important features, etc.	
Hydrophytic Vegetation Preser	nt? Yes	X No			
Hydric Soil Present?	Yes	X No	Is the Sampled Area		
Wetland Hydrology Present?	Yes	X No	within a Wetland?	resX No	
Precipitation prior to fieldwork:	According to the AgACIS	Boardman weather station	0.00 inches of precipitation was	received on the day of fieldwork and 0	.05
	inches during the two we	eks prior. Conditions for Ma	rch are wetter than normal.		
Remarks:					
Distission in Issue at the second	In the last section of the terry Advantage of the		at law and in a law at any the angle to the		

Plot location in lowest topographic location within Wetland A and is approximately 5 feet lower in elevation than Plot 8.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' r</u>)	% Cover	Species?	Status	Number of Dominant Species
1. <u>Elaeagnus angustifolia</u> 2.	1%	No	FAC	That Are OBL, FACW, or FAC:(A)
3.				Total Number of Dominant
4				Species Across All Strata:(B)
Or a line of Ohmathe Ohmathematic (Dict sizes 10) a		Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' r</u> 1.)			Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
2.				
3.				Prevalence Index worksheet: Total % Cover of:Multiply by:
4.				OBL species 0 x 1 = 0
5.				FACW species x 2 =0
Herb Stratum (Plot size: ^{5' r})	0% =	Total Cover		FAC species 86 x 3 = 258 FACU species 14 x 4 = 56
1. Xanthium strumarium	81%	Yes	FAC	UPL species1 x 5 =5
2. Sphaerophysa salsula	14%	No	FACU	Column Totals: 101 (A) 319 (B)
3. Atriplex heterosperma	4%	No	FAC*	Prevalence Index = $B/A = \frac{3.16}{2}$
4. Onopordum acanthium	1%	No	NOL	Hydrophytic Vegetation Indicators:
5				X Dominance Test is >50%
6				Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				
11				¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:10' r)= -	Total Cover		be present.
1				
2				Hydrophytic
		Total Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum 0%	% Cover o	of Biotic Crust		Present?
Remarks:				
*Assumed FAC.				

SOIL						Sampling Point:	6
Profile Description: (Describe to	the depth ne	eded to document	the indicator or o	confirm the abs	ence of indicators	.)	
Depth Mati	ix		Redox F	eatures			
(inches) Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks
0-4 10YR 2/1	100					SiL	
4-18 10YR 3/2	95	7.5YR 3/4	5	С	M/PL	SiCL	Fine sands
		<u> </u>					
	1	- <u> </u>				<u> </u>	
Type: C=Concentration, D=Depleti	on, RM=Redu	ced Matrix CS=Cov	vered or Coated Sa	and Grains.	² Location: PL=Pc	re Lining, M=Matrix.	
Texture: S = sand; Si = silt; C = cla	y; L = loam oi	loamy. Texture Mo	difier: co = coarse	; f = fine; vf = vei	ry fine; + = heavy (r	nore clay); - = light (less	clay)
ydric Soil Indicators: (Applicabl	e to all LRRs	, unless otherwise	noted.)		Indicators for	Problematic Hydric Soil	s ³ :
Histosol (A1)		Sandy Redox	. ,			(A9) (LRR C)	
Histic Epipedon (A2)		Stripped Matrix	. ,			(A10) (LRR B)	
Black Histic (A3)		Loamy Mucky	· · · ·		Reduced V	. ,	
Hydrogen Sulfide (A4)		Loamy Gleyed				Material (TF2)	
Stratified Layers (A5) (LRR C)		Depleted Matri	. ,		Other (Exp	ain in Remarks)	
1 cm Muck (A9) (LRR D)	A 4 4)	X Redox Dark Su			³ Indicators of b	vdrophytic vegetation and	4
Depleted Below Dark Surface (Thick Dark Surface (A12)	ATT)	Depleted Dark Redox Depres	. ,			blogy must be present,	1
		Vernal Pools (. ,		-	bed or problematic.	
			1.3)		unicaa uatun	cu or problematic.	
Sandy Mucky Mineral (S1)		``	,				
Sandy Gleyed Matrix (S4)		、		I			
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		、					
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		、				Y	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		、		Нус	tric Soil Present?	Yes X	No
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches):				Нус	tric Soil Present?	Yes X	No
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches):		````````````````````````````````		Нус	dric Soil Present?	Yes X	No
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks:		, 		Нус	dric Soil Present?	Yes X	No
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks:		, 		Нус	fric Soil Present?	Yes X	No
Sandy Gleyed Matrix (S4) testrictive Layer (if present): Type: Depth (inches): Cemarks: typrology typrology Vetland Hydrology Indicators:	- required; che			Нус		Yes X	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators:	- required; che			Нус	Secondary Indi		
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one	- required; che	ck all that apply)	1)	Нус	Secondary India	cators (2 or more require	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1)	- required; che	<u>ck all that apply)</u> Salt Crust (B1	1) 12)	Нус	Secondary India	cators (2 or more required	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)		ck all that apply) Salt Crust (B1 Biotic Crust (B	1) 12) ebrates (B13)	Нус	Secondary Indi Water Mark Sediment D Drift Depos	cators (2 or more required ss (B1) (Riverine) Deposits (B2) (Riverine)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3))	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf	1) 12) ebrates (B13)		Secondary India Water Mark Sediment D Drift Depos	cators (2 or more require ts (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine) verine)	ck all that apply) Salt Crust (B1 Biotic Crust (B Hydrogen Sulf Hydrogen Sulf Oxidized Rhize	1) 12) bbrates (B13) ide Odor (C1)		Secondary India Water Mark Sediment D Drift Depos	cators (2 or more required as (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri) verine)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Aquatic Inverte Oxidized Rhize Presence of R	1) 12) ebrates (B13) ide Odor (C1) ospheres along Liv	ving Roots (C3)	Secondary India Water Mark Sediment D Drift Depos Drainage P Dry-Season Crayfish Bu	cators (2 or more required as (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverine) verine) e)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Aquatic Inverte Oxidized Rhize Presence of R	1) 12) ebrates (B13) ide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S	ving Roots (C3)	Secondary India Water Mark Sediment D Drift Depos Drainage P Dry-Season Crayfish Bu	cators (2 or more required s (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2) irrows (C8) /isible on Aerial Imagery	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6)) verine) e)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhizo Recent Iron Re	1) 12) bbrates (B13) ide Odor (C1) bospheres along Liv educed Iron (C4) eduction in Tilled S face (C7)	ving Roots (C3)	Secondary India Water Mark Sediment D Drift Depos Drainage P Dry-Seasor Crayfish Bu Saturation	cators (2 or more required ss (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2) irrows (C8) Visible on Aerial Imagery uitard (D3)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverine Surface Soil Cracks (B6) Inundation Visible on Aerial Ima Water-Stained Leaves (B9)) verine) e)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur	1) 12) bbrates (B13) ide Odor (C1) bospheres along Liv educed Iron (C4) eduction in Tilled S face (C7)	ving Roots (C3)	Secondary India Water Mark Sediment D Drift Depos Drainage P Dry-Season Crayfish Bu Saturation ` Shallow Aq	cators (2 or more required ss (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2) irrows (C8) Visible on Aerial Imagery uitard (D3)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverin Drift Deposits (B3) (Nonriverin Surface Soil Cracks (B6) Inundation Visible on Aerial Ima Water-Stained Leaves (B9) Field Observations:) verine) e) agery (B7)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur	1) 12) bbrates (B13) ide Odor (C1) bospheres along Liv educed Iron (C4) eduction in Tilled S face (C7)	ving Roots (C3) Soils (C6)	Secondary India Water Mark Sediment D Drift Depos Drainage P Dry-Season Crayfish Bu Saturation ` Shallow Aq	cators (2 or more required ss (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2) irrows (C8) Visible on Aerial Imagery uitard (D3)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverine Surface Soil Cracks (B6) Inundation Visible on Aerial Ima Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes) verine) e) agery (B7)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhizo Presence of R Recent Iron Re Thin Muck Sur Other (Explain	1) 12) ebrates (B13) ide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S face (C7) in Remarks)	ving Roots (C3) Soils (C6)	Secondary India Water Mark Sediment E Drift Depos Drainage P Dry-Seasor Crayfish Bu Saturation Shallow Aq FAC-Neutra	cators (2 or more required ss (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2) irrows (C8) Visible on Aerial Imagery uitard (D3)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverine Surface Soil Cracks (B6) Inundation Visible on Aerial Ima Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes) verine) e) agery (B7)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Oxidized Rhize Oxidized Rhize OXI	1) 12) ebrates (B13) ide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S face (C7) in Remarks) Depth (inches):	ving Roots (C3) Soils (C6)	Secondary India Water Mark Sediment E Drift Depos Drainage P Dry-Seasor Crayfish Bu Saturation Shallow Aq FAC-Neutra	cators (2 or more required as (B1) (Riverine) Deposits (B2) (Riverine) atterns (B10) atterns (B10) o Water Table (C2) Irrows (C8) Visible on Aerial Imagery uitard (D3) al Test (D5)	
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri Drift Deposits (B3) (Nonriverine Surface Soil Cracks (B6) Inundation Visible on Aerial Ima Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes) verine) e) agery (B7)	ck all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte Oxidized Rhize Oxidized Rhize OXI	1) 12) ebrates (B13) ide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S face (C7) in Remarks) Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6)	Secondary India Water Mark Sediment E Drift Depos Drainage P Dry-Seasor Crayfish Bu Saturation Shallow Aq FAC-Neutra	cators (2 or more required as (B1) (Riverine) Deposits (B2) (Riverine) its (B3) (Riverine) atterns (B10) n Water Table (C2) irrows (C8) Visible on Aerial Imagery uitard (D3) al Test (D5)	d) (C9)

Project/Site: Perche	eron		City/County:	Boardman/ Morrow County	Sampling I	Date: 3/31/2022
Applicant/Owner: Birc	ch Infrastructure, LLC			State: (OR Samplin	ng Point: 7
Investigator(s): Son	ya Templeton, Margret Harbu	g, Stacey Reed, PWS	S Sectio	n, Township, Range: Sec. 28, T.	3N., R.24E., W.M.	
Landform (hillslope, terrad	ce, etc.): Terrace			Local relief (concave, convex, n	none): Concave	Slope (%): <5%
Subregion (LRR): (B)	Columbia/Snake River Pla	iteau .	Lat: 45.708203	Long: -119.815958	Datu	um: NAD83
Soil Map Unit Name:	Sagehill fine sandy	loam hummocky	(Unit 55B) , 2-5% sl	opes; Non-hydric	NWI classification:	None
Are climatic / hydrologic	c conditions on the site typ	ical for this time of	year?	Yes	No <u>X</u> (If no, exp	plain in Remarks)
Are Vegetation	,Soil	, or Hydrology	significantly dis	sturbed? Are "Normal Circum	stances" present?	Yes X No
Are Vegetation	,Soil	, or Hydrology	naturally proble	ematic? (If needed, explain a	any answers in Remark	s.)
SUMMARY OF	FINDINGS – Attach	site map show	wing sampling	point locations, transec	ts, important feat	tures, etc.
Hydrophytic Vegetatior	n Present?	Yes X	No			
Hydric Soil Present?		Yes X	No	Is the Sampled Area		
Wetland Hydrology Pre	esent?	Yes X	No	within a Wetland? Y	res X No_	
Precipitation prior to fiel	Idwork: According to the	e AgACIS Boardma	an weather station,	0.00 inches of precipitation was	received on the day of	fieldwork and 0.05
	inches during th	e two weeks prior.	Conditions for Mar	ch are wetter than normal.		
Remarks:						

Plot located approximately 3 feet higher in elevation than Plot 6.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' r</u>)	% Cover	Species?	Status	Number of Dominant Species
 Elaeagnus angustifolia 2. 	1%	No	FAC	That Are OBL, FACW, or FAC:(A)
3.				
				Total Number of Dominant
4				Species Across All Strata: <u>3</u> (B)
Sapling/Shrub Stratum (Plot size: 10' r		Total Cover		Percent of Dominant Species
1.	-/			That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
2.				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.				OBL species 0 x 1 = 0
5.				FACW species x 2 =0
	0% =	Total Cover		FAC species X 3 = 234
Herb Stratum (Plot size: ^{5' r})				FACU species 0 x 4 = 0
1. Atriplex heterosperma	35%	Yes	FAC*	UPL species <u>15</u> x 5 = <u>75</u>
2. Verbena bracteata	30%	Yes	FAC	Column Totals: <u>93</u> (A) <u>309</u> (B)
3. Onopordum acanthium	_ 15% _	Yes	NOL	Prevalence Index = B/A = <u>3.32</u>
4. Chenopodium species	10%	No	FAC*	Hydrophytic Vegetation Indicators:
5. Xanthium strumarium	2%	No	FAC	X Dominance Test is >50%
6				Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				
11				¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 10' r		Total Cover		be present.
1.	_)			
2.				Hydrophytic
	0% =	Total Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum5%	% Cover o	of Biotic Crust	5	Present?
Remarks:				
*Assumed FAC. Contained Panicum capillare (FAC) during 10/14/20	21 site visit.		

	Matrix	ĸ		Redox Fe	eatures			
Depth (inches) C	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks
0-6	10YR 3/2	100					SiL	
6-16	10YR 4/2	55	7.5YR 4/4		С	M	SL	
	10YR 3/2	35	7.5YR 4/4	5	C	M/PL	SiCL	
			<u> </u>					
Type: C=Concentrat	tion, D=Depletio	n, RM=Redu	iced Matrix CS=Cov	vered or Coated Sa	nd Grains.	² Location: PL=F	Pore Lining, M=Matrix.	
Texture: S = sand; S	Si = silt; C = clay	; L = loam oi	r loamy. Texture Mo	odifier: co = coarse;	f = fine; vf = ver	y fine; + = heavy	(more clay); - = light (les	s clay)
Hydric Soil Indicato Histosol (A1)	ors: (Applicable	to all LRRs	, unless otherwise Sandy Redox	•			r Problematic Hydric So k (A9) (LRR C)	oils ³ :
Histic Epipedon	(A2)		Stripped Matri	x (S6)		2 cm Muc	k (A10) (LRR B)	
Black Histic (A3))		Loamy Mucky	Mineral (F1)		Reduced	Vertic (F18)	
Hydrogen Sulfide	e (A4)		Loamy Gleyed	d Matrix (F2)		Red Pare	nt Material (TF2)	
Stratified Layers	. , . ,		X_Depleted Matr			Other (Ex	plain in Remarks)	
1 cm Muck (A9)	. ,		Redox Dark S			3		
Depleted Below	· ·	.11)	Depleted Dark				hydrophytic vegetation a	ind
Thick Dark Surfa	. ,		Redox Depres	. ,		-	Irology must be present,	
Sandy Mucky Mi Sandy Gleyed M	. ,		Vernal Pools ((F9)		uniess distu	rbed or problematic.	
Sandy Gleyed M Restrictive Layer (if Type:	latrix (S4)		Vernal Pools (F9)	Hur			No
Sandy Gleyed M Restrictive Layer (if	latrix (S4)			F9)	Нус	dric Soil Present		_ No
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY	f present):			F9)	Нус			_ No
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology	f present):				Нус	dric Soil Present	? Yes <u>X</u>	
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m	f present): Indicators: ninimum of one r	equired; che	eck all that apply)		Нус	dric Soil Present	? Yes X	
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (mSurface Water (#	Iatrix (S4) F present): Indicators: ninimum of one r A1)	equired; che	eck all that apply)	1)	Нус	Iric Soil Present	? Yes X dicators (2 or more requir rks (B1) (Riverine)	red)
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (mSurface Water (#High Water Table)	Iatrix (S4) F present): Indicators: ninimum of one r A1)	equired; che	eck all that apply) Salt Crust (B1 Biotic Crust (B	1)	Нус	dric Soil Present	? Yes X dicators (2 or more requin rks (B1) (Riverine) Deposits (B2) (Riverine)	red)
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Water (# High Water Tabl Saturation (A3)	Iatrix (S4) f present): Indicators: ninimum of one r A1) le (A2)	equired; che	ck all that apply) Salt Crust (B1 X Biotic Crust (B Aquatic Invert	1) 112) ebrates (B13)	Нус	Secondary Ind Secondary Ind Water Ma Sediment Drift Depo	? Yes X dicators (2 or more requin rks (B1) (Riverine) Deposits (B2) (Riverine osits (B3) (Riverine)	red)
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Water (4 High Water Tabl. Saturation (A3) X Water Marks (B1	Indicators: Indicators: hinimum of one r A1) le (A2)) (Nonriverine)		ck all that apply) Salt Crust (B1 Aquatic Invert Aquatic Invert	1) 312) ebrates (B13) fide Odor (C1)		Secondary Inc. Secondary Inc. Sediment Drift Depo	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine) psits (B3) (Riverine) Patterns (B10)	red)
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (mSurface Water (AHigh Water TableSaturation (A3) X_Water Marks (B1Sediment Depose	Indicators: Indicators: hinimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv	erine)	ck all that apply) Salt Crust (B1 X Biotic Crust (B Aquatic Invert Uydrogen Sult	1) 12) ebrates (B13) fide Odor (C1) ospheres along Liv		Secondary Ind Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Seas	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine) patterns (B10) on Water Table (C2)	red)
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Water (4 High Water Tabl. Saturation (A3) X Water Marks (B1	Indicators: Indicators: ninimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv 33) (Nonriverine	erine)	eck all that apply) Salt Crust (B1 Siotic Crust (B Aquatic Invertu Hydrogen Sulf Oxidized Rhiz Presence of R	1) 312) ebrates (B13) fide Odor (C1)	ing Roots (C3)	Secondary Ind Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Sease Crayfish E	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine) osits (B3) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8)	red)
Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) X Water Marks (B1 Sediment Deposs Drift Deposits (B	Indicators: ininimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv 3) (Nonriverine acks (B6)	erine))	eck all that apply) Salt Crust (B1 Siotic Crust (B Aquatic Invertu Hydrogen Sulf Oxidized Rhiz Presence of R	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S	ing Roots (C3)	Secondary Ind Water Ma Sediment Drift Depo Drainage Crayfish E Saturation	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine) patterns (B10) on Water Table (C2)	red)
Sandy Gleyed M Sestrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) X Water Marks (B1 Sediment Depos Drift Deposits (B Surface Soil Cra	Iatrix (S4) F present): Indicators: ninimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv G3) (Nonriverine) icks (B6) le on Aerial Image	erine))	 <u>eck all that apply</u> Salt Crust (B1 X Biotic Crust (B Aquatic Inverted Hydrogen Sulf Oxidized Rhiz Presence of R Recent Iron R 	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S rface (C7)	ing Roots (C3)	Secondary Ind Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Sease Crayfish E Saturatior Shallow A	? Yes X dicators (2 or more requin rks (B1) (Riverine) Deposits (B2) (Riverine) patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Image	red)
Sandy Gleyed M Sestrictive Layer (if Type: Depth (inches): Remarks:	Iatrix (S4) f present): Indicators: ninimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv G3) (Nonriverine) ucks (B6) le on Aerial Imag eaves (B9)	erine))	ck all that apply) Salt Crust (B1 X Biotic Crust (B Aquatic Invert Hydrogen Sulf Oxidized Rhiz Presence of R Recent Iron R Thin Muck Su	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S rface (C7)	ing Roots (C3)	Secondary Ind Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Sease Crayfish E Saturatior Shallow A	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine osits (B3) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Image equitard (D3)	red)
Sandy Gleyed M Sestrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) X Water Marks (B1 Sediment Deposits (B Surface Soil Cra Inundation Visibl Water-Stained L Field Observations:	Indicators: ininimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv 3) (Nonriverine tacks (B6) le on Aerial Imag eaves (B9) :	erine)) gery (B7)	 Eck all that apply) Salt Crust (B1 X Biotic Crust (B Aquatic Inverted Hydrogen Sulf Oxidized Rhiz Presence of R Recent Iron R Thin Muck Sulf Other (Explain 	1) ebrates (B13) fide Odor (C1) ospheres along Liv educed Iron (C4) eduction in Tilled S rface (C7)	ing Roots (C3)	Secondary Ind Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Sease Crayfish E Saturatior Shallow A	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine osits (B3) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Image equitard (D3)	red)
Sandy Gleyed M Sestrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) X Water Marks (B1 Sediment Deposits (B Surface Soil Cra Inundation Visibl Water-Stained L Field Observations: Surface Water Prese	Indicators: Indicators: ininimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv B3) (Nonriverine) le on Aerial Imag eaves (B9) : ent? Yes	erine)) gery (B7)	ck all that apply) Salt Crust (B1 X Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhiz Presence of R Recent Iron R Thin Muck Sun Other (Explain	1) 312) ebrates (B13) fide Odor (C1) ospheres along Liv teduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches):	ing Roots (C3)	Secondary Ind Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Sease Crayfish E Saturation Shallow A FAC-Neut	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imager Aquitard (D3) tral Test (D5)	red)
Sandy Gleyed M Sandy Gleyed M Restrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) X Water Marks (B1 Sediment Deposit Drift Deposits (B Surface Soil Cra Inundation Visible	Indicators: indicators: ininimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriverine) sits (B2) (Nonriverine) acks (B6) le on Aerial Imag eaves (B9) : ent? Yes	erine)) jery (B7)	eck all that apply)	1) B12) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches): Depth (inches):	ing Roots (C3) oils (C6)	Secondary Ind Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Sease Crayfish E Saturation Shallow A FAC-Neut	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Image equitard (D3) tral Test (D5) Hydrology Present?	red)
Sandy Gleyed M Sestrictive Layer (if Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) X Water Marks (B1 Sediment Depose Drift Deposits (B Surface Soil Cra Inundation Visible Water-Stained L Field Observations: Surface Water Preser Water Table Present	Iatrix (S4) f present): f present): Indicators: ninimum of one r A1) le (A2)) (Nonriverine) sits (B2) (Nonriv Bits (B2) (Nonriv Bits (B6) le on Aerial Image eaves (B9) ent? Yes t? Yes inge)	erine)) gery (B7)	eck all that apply) Salt Crust (B1 X Biotic Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhiz Presence of R Recent Iron R Thin Muck Sul Other (Explain No X No X	1) ebrates (B13) fide Odor (C1) ospheres along Liv teduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches): Depth (inches):	ing Roots (C3) oils (C6) 	Secondary Ind Water Ma Sediment Drift Depo Drainage Dry-Sease Crayfish E Saturation FAC-Neut	? Yes X dicators (2 or more requir rks (B1) (Riverine) Deposits (B2) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imager Aquitard (D3) tral Test (D5)	red)) ry (C9)

Project/Site: Perc	cheron		Ċ	City/County:	Boardman/	Morrow Count	ty Sa	ampling Dat	e: 3/31/202	22.
Applicant/Owner: B	Firch Infrastructure, LLC					. :	State: OR	Sampling	g Point:	. 8
Investigator(s): S	onya Templeton, Margret Harbu	rg, Stacey Reed, PWS		Section, 7	Township, F	Range: Sec. 28	3, T.3N., R.24E., W	.M.		
Landform (hillslope, ter	race, etc.): Terrace				Local re	elief (con cave, c	onvex, none): Co	onvex .	Slope (%	. 5-10%
Subregion (LRR): (E	B) Columbia/Snake River Pla	ateau L	at: 45	5.708260		Long: -119.8	16008	Datur	m: NAD83	
Soil Map Unit Name:	Sagehill fine sand	/ loam hummocky (L	Jnit 5	55B) , 2-5% slo	opes; Non-ł	nydric	NWI classi	fication:	N	one
Are climatic / hydrolog	gic conditions on the site typ	ical for this time of y	ear?			Yes	No <u></u> X	_(If no, exp	lain in Rem	narks)
Are Vegetation	,Soil	, or Hydrology	si	ignificantly dis	sturbed?	Are "Normal (Circumstances" pre	esent?	Yes X	<u>No</u>
Are Vegetation	,Soil	, or Hydrology	n	aturally proble	ematic?	(If needed, ex	kplain any answers	in Remarks	s.)	
SUMMARY OF	FINDINGS – Attach	site map show	ing	sampling	point loc	cations, tra	nsects, impor	tant feati	ures, etc	
Hydrophytic Vegetati	ion Present?	Yes 1	No _	X						
Hydric Soil Present?		Yes I	No _	X	Is the Sam	pled Area				
Wetland Hydrology F	Present?	Yes 1	No _	X	within a W	/etland?	Yes	No	Χ	
Precipitation prior to f	•	e AgACIS Boardmar						the day of	fieldwork a	nd 0.05
	inches during th	ie two weeks prior. (Cond	itions for Mar	ch are wette	er than normal.				
Remarks:										

Plot located approximately 2 feet higher in elevation than Plot 7.

Tree Stratum (Plot size: <u>30' r</u>) 1 2	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1_(A)
3. 4. Sapling/Shrub Stratum (Plot size: <u>10' r</u>) 1. Artemisia tridentata		Total Cover Yes	 NOL	Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. 3. 4. 5.				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0
Herb Stratum (Plot size: ^{5' r}) 1. <u>Sphaerophysa salsula</u> 2. <u>Atriplex heterosperma</u> 3. <u>Amaranthus species</u>	<u> </u>	Total Cover Yes Yes No	FACU FAC* FACU*	FAC species 25 70 x 4 = 75 280 FACU species 30 $x 5 =150UPL species30x 5 =150Column Totals:125Prevalence Index = B/A =4.04$
4. Chenopodium species 5.		No	FAC*	Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
		Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present.
1. 2. % Bare Ground in Herb Stratum		Total Cover		Hydrophytic Vegetation YesNoX Present?
Remarks: *Assumed.				

SOIL							Sampling Point:	8
Profile Descrip	tion: (Describe to the	e depth need	ded to document	the indicator or	confirm the	absence of indicators.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks
0-14	10YR 4/3	100					LS	
	<u> </u>							
				<u> </u>				
¹ Type: C=Conce	entration, D=Depletion	, RM=Reduc	ed Matrix CS=Cov	ered or Coated S	and Grains.	² Location: PL=Po	re Lining, M=Matrix.	
³ Texture: S = sa	nd; Si = silt; C = clay;	L = loam or l	oamy. Texture Mo	difier: co = coarse	e; f = fine; vf =	very fine; + = heavy (n		clay)
Hvdric Soil Indi	cators: (Applicable t	o all LRRs. I	unless otherwise	noted.)		Indicators for F	Problematic Hydric So	ils ³ :
Histosol (A1			Sandy Redox (-			(A9) (LRR C)	
Histic Epipe	don (A2)	_	Stripped Matrix	(S6)		2 cm Muck	(A10) (LRR B)	
Black Histic	(A3)	_	Loamy Mucky	Mineral (F1)		Reduced Ve	ertic (F18)	
Hydrogen S	ulfide (A4)	_	Loamy Gleyed	Matrix (F2)		Red Parent	Material (TF2)	
Stratified La	yers (A5) (LRR C)	_	Depleted Matri	x (F3)		Other (Expla	ain in Remarks)	
1 cm Muck ((A9) (LRR D)	_	Redox Dark Su	urface (F6)		2		
Depleted Be	elow Dark Surface (A1	1) _	Depleted Dark	Surface (F7)		³ Indicators of hy	drophytic vegetation an	d
	Surface (A12)	_	Redox Depress	. ,		wetland hydro	logy must be present,	
	ky Mineral (S1)	_	Vernal Pools (F	=9)		unless disturb	ed or problematic.	
Sandy Gleye	ed Matrix (S4)							
Restrictive Laye	er (if present):							
Туре:								
Depth (inches)):					Hydric Soil Present?	Yes	No X
Remarks:								
HYDROLOG Wetland Hydrol								
•	0,		II 41 4 1 1 1 1-			O	-t (0	-1)
	rs (minimum of one re	quirea; cneci					ators (2 or more require	<u>(D)</u>
Surface Wa	. ,	-	Salt Crust (B11				s (B1) (Riverine)	
High Water	. ,	_	Biotic Crust (B	,			eposits (B2) (Riverine)	
Saturation (,	_	Aquatic Inverte	()			ts (B3) (Riverine)	
	s (B1) (Nonriverine)		Hydrogen Sulfi	. ,	in a De ete (O		atterns (B10)	
	eposits (B2) (Nonrive	rine) _		spheres along Li	ving Roots (C		Water Table (C2)	
	ts (B3) (Nonriverine)	_		educed Iron (C4)		Crayfish Bu	. ,	(CO)
	l Cracks (B6) /isible on Aerial Image		Thin Muck Sur	eduction in Tilled :	5011S (C6)	Shallow Aqu	(isible on Aerial Imagery	/(C9)
	ed Leaves (B9)	-iy(D7)	Other (Explain	. ,		FAC-Neutra	. ,	
	· · · ·	_		in Remarks)				
Field Observati		-						
Surface Water F			No <u>X</u>	Depth (inches):				
Water Table Pre			No X	Depth (inches):	>14"	Wetland Hy	drology Present?	
Saturation Prese		1	No X	Depth (inches):	>14"		Yes	No <u>X</u>
(includes capilla Describe Record	iry fringe) ded Data (stream gau	ae, monitorin	g well, aerial photo	os, previous inspe	ections) if ava	ailable:		
20001001100011	asa bata (stroam gau	90, mormorm	g tron, aona prior	22, promoto mopt				
Remarks:								
Soils very dry thr	roughout.							

Project/Site: Percheron		City/County:	Boardman/ Morrow Count	ty S	Sampling Date: 10/14/202	21
Applicant/Owner: Birch Infra	structure, LLC			State: OR	Sampling Point:	. 9 .
Investigator(s): Sonya Ter	npleton and Marget Harburg	Section,	Township, Range: Sec. 28	3, T.3N., R.24E., V	V.M.	
Landform (hillslope, terrace, etc.):	Terrace	 	Local relief (concave, c	onvex, none): C	oncave Siope (%):	<3%
Subregion (LRR): (B) Columi	oia/Snake River Plateau	Lat: 45.707589	Long: -119.8	16378	Datum: NAD83	
Soil Map Unit Name:	Sagehill fine sandy loam hum	nmocky (Unit 55B) , 2-5% s	lopes; Non-hydric	NWI class	sification: No	one
Are climatic / hydrologic condit	ions on the site typical for this	time of year?	Yes 🗾 🗡	X No	(If no, explain in Rema	arks)
Are Vegetation	,Soil, or Hydrol	logysignificantly d	sturbed? Are "Normal	Circumstances" pr	resent? Yes X	No
Are Vegetation	,Soil, or Hydrol	logynaturally prob	lematic? (If needed, ex	xplain any answers	s in Remarks.)	
SUMMARY OF FIND	INGS – Attach site ma	p showing sampling	g point locations, tra	ansects, impo	ortant features, etc	
Hydrophytic Vegetation Prese	nt? Yes 🗡	KNo				
Hydric Soil Present?	Yes X	K No	Is the Sampled Area			
Wetland Hydrology Present?	Yes X	K No	within a Wetland?	Yes <u>X</u>	No	
Precipitation prior to fieldwork:	According to the AgACIS E inches during the two wee		0.00 inches of precipitation	on was received o	on the day of fieldwork an	d 0.14
Remarks:		•				
Plot located approximately 1 fo	ot lower in elevation than Plot	t 10.				
VEGETATION						

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant	Indicator Status	Dominance Test worksheet: Number of Dominant Species
·/		Species?		
1. <u>Elaeagnus angustifolia</u> 2	40%	Yes	FAC	That Are OBL, FACW, or FAC:(A)
3.				Total Number of Dominant
4				Species Across All Strata: 2 (B)
		otal Cover		
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)			Percent of Dominant Species
1.				That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2				Prevalence Index worksheet: Total % Cover of: Multiply by:
· · · · · · · · · · · · · · · · · · ·				
4				OBL species $0 \times 1 = 0$
5	= T	otal Cover		FACW species 0 x 2 = 0 FAC species 140 x 3 = 420
Herb Stratum (Plot size: <u>5'</u> r)		olai Covei		FACU species $0 \times 4 = 0$
1. Atriplex heterosperma	100%	Yes	FAC*	UPL species 0 x 5 = 0
2.				Column Totals:(A)(B)
3.				Prevalence Index = $B/A = 3.00$
4				Hydrophytic Vegetation Indicators:
5				X Dominance Test is >50%
6				X Prevalence Index is ≤3.0 ¹
7.				Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
0				
				¹ Indicators of hydric soil and wetland hydrology must
11	= T	iotal Covor		be present.
Woody Vine Stratum (Plot size: ^{10' r}				be present.
1.				
2				Hydrophytic
		otal Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum 0%	% Cover of	f Biotic Crust		Present?
Remarks: *Assumed FAC.				
Assumed I AU.				

SOIL								
Profile Description	n: (Describe to the	e depth nee	ded to documen	t the indicator or o	confirm the abs	ence of indicators	5.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks
0-6	10YR 4/2	100					LS	
6-16	10YR 4/2	95	7.5YR 3/4	5	С	M	LS	
·								
·								
						2		
	ation, D=Depletion,						ore Lining, M=Matrix.	
Texture: S = sand;	Si = silt; C = clay;	L = loam or	loamy. Texture Mo	odifier: co = coarse	; f = fine; vf = vei		more clay); - = light (less c	
Histosol (A1)	tors: (Applicable to	o all LRRs,	unless otherwise X Sandy Redox				Problematic Hydric Soils (A9) (LRR C)	s ³ :
Histic Epipedor	n (A2)	-	Stripped Matr	ix (S6)			(A10) (LRR B)	
Black Histic (A3	3)	_	Loamy Mucky	/ Mineral (F1)		Reduced V	/ertic (F18)	
Hydrogen Sulfie	de (A4)	-	Loamy Gleyed	d Matrix (F2)		Red Paren	t Material (TF2)	
Stratified Layer	rs (A5) (LRR C)	-	Depleted Mat	rix (F3)		Other (Exp	lain in Remarks)	
1 cm Muck (A9) (LRR D)	-	Redox Dark S	Surface (F6)		2		
Depleted Below	v Dark Surface (A1	1) _	Depleted Darl	k Surface (F7)		³ Indicators of h	ydrophytic vegetation and	
			Reday Denres	ssions (F8)		wetland hydr	ology must be present,	
Thick Dark Sur		-					•••	
Sandy Mucky N	Mineral (S1)	-	Vernal Pools			unless distur	bed or problematic.	
	Mineral (S1)	-				unless distur	•••	
Sandy Mucky N Sandy Gleyed I	Mineral (S1) Matrix (S4)	-				unless distur	•••	
Sandy Mucky N Sandy Gleyed I	Mineral (S1) Matrix (S4)	-				unless distur	•••	
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Mineral (S1) Matrix (S4)	-			Нус	unless distur	bed or problematic.	No
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches):	Mineral (S1) Matrix (S4)				Нус		bed or problematic.	No
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches):	Mineral (S1) Matrix (S4)				Нус		bed or problematic.	No
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks:	Mineral (S1) Matrix (S4)				Нус		bed or problematic.	No
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks:	Vlineral (S1) Matrix (S4) (if present):				Нус		bed or problematic.	No
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology	Vineral (S1) Matrix (S4) (if present):	- - - - - - - - - - - - - - - - - - -	Vernal Pools		Нус	Iric Soil Present?	bed or problematic.	
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology	Vineral (S1) Matrix (S4) if present): y Indicators: minimum of one re	quired; chec	Vernal Pools	(F9)	Нус	Iric Soil Present?	bed or problematic.	
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (Vineral (S1) Matrix (S4) if present): y Indicators: minimum of one re (A1)	quired; chec	Vernal Pools	(F9)	Нус	Iric Soil Present?	bed or problematic. Yes X	
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (Surface Water	Vineral (S1) Matrix (S4) (if present): y Indicators: (A1) ble (A2)	quired; chec	Vernal Pools ((F9)	Нус	Iric Soil Present?	bed or problematic. Yes X I icators (2 or more required ks (B1) (Riverine)	
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3)	Vineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) ble (A2)	quired; chec	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (E Aquatic Invert	(F9) 11) 312)	Нус	Iric Soil Present?	Yes X I Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine)	
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Metland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B	Vineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) ble (A2)		Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul	(F9) 11) 312) tebrates (B13)		Iric Soil Present? Secondary Indi Sediment I Drift Depos	Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine)	
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B Sediment Depo	Mineral (S1) Matrix (S4) if present): y Indicators: (minimum of one re (A1) ble (A2)) (Nonriverine)		Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F	(F9) (F9) (F9) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F	ring Roots (C3)	Iric Soil Present?	Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8))
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B Sediment Depo Drift Deposits (Surface Soil Cr	Mineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) ble (A2) (1) (Nonriverine) posits (B2) (Nonriver B3) (Nonriverine) racks (B6)	- - rine)	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R	(F9) 11) 312) tebrates (B13) fide Odor (C1) cospheres along Liv Reduced Iron (C4) Reduction in Tilled S	ring Roots (C3)	Iric Soil Present?	Yes X I Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery ()
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil	Vineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) (ble (A2) (1) (Nonriverine) (B3) (Nonriverine) racks (B6) ble on Aerial Image	- - rine)	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su	(F9) 11) 312) tebrates (B13) fide Odor (C1) tospheres along Liv Reduced Iron (C4) Reduction in Tilled S irface (C7)	ring Roots (C3)	Iric Soil Present?	Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3))
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B Sediment Depo Drift Deposits (Surface Soil Cr	Vineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) (ble (A2) (1) (Nonriverine) (B3) (Nonriverine) racks (B6) ble on Aerial Image	- - rine)	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R	(F9) 11) 312) tebrates (B13) fide Odor (C1) tospheres along Liv Reduced Iron (C4) Reduction in Tilled S irface (C7)	ring Roots (C3)	Iric Soil Present?	Yes X I Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery ()
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil Water-Stained	Mineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) ble (A2) (1) (Nonriverine) posits (B2) (Nonriver B3) (Nonriverine) racks (B6) ble on Aerial Image Leaves (B9) s:	- rine) 	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su Other (Explain	(F9) 11) 312) tebrates (B13) fide Odor (C1) tospheres along Liv Reduced Iron (C4) Reduction in Tilled S irface (C7)	ring Roots (C3)	Iric Soil Present?	Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3))
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil Water-Stained	Mineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) ble (A2) (1) (Nonriverine) posits (B2) (Nonriverine) racks (B6) ble on Aerial Image Leaves (B9) s: sent? Yes	- rine) 	Vernal Pools (Sk all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su Other (Explain No X	(F9) 11) 312) tebrates (B13) fide Odor (C1) tospheres along Liv Reduced Iron (C4) Reduction in Tilled S irface (C7)	ring Roots (C3)	Iric Soil Present?	Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3))
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Primary Indicators (Surface Water Tat Saturation (A3) X Water Marks (B Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil Water-Stained Field Observations Surface Water Pres	Mineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) ble (A2) (1) (Nonriverine) posits (B2) (Nonriverine) racks (B6) ble on Aerial Image Leaves (B9) s: sent? Yes	- rine) 	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su Other (Explain	(F9) 11) 312) tebrates (B13) fide Odor (C1) cospheres along Liv Reduced Iron (C4) Reduced Iron (C4) Reduction in Tilled S irface (C7) n in Remarks)	ring Roots (C3)	Iric Soil Present?	Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3))
Sandy Mucky M Sandy Gleyed I Restrictive Layer (Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Primary Indicators (Surface Water High Water Tat Saturation (A3) X Water Marks (B Sediment Depo Drift Deposits (Surface Soil Cr Inundation Visil	Mineral (S1) Matrix (S4) (if present): y Indicators: (minimum of one re (A1) ble (A2) (1) (Nonriverine) osits (B2) (Nonriver B3) (Nonriverine) racks (B6) ble on Aerial Image Leaves (B9) s: sent? Yes_ nt? Yes_	- rine) 	Vernal Pools (Sk all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su Other (Explain No X	(F9) (F9) (F9) (F9) (F) (F) (F) (F) (F) (F) (F) (F	ring Roots (C3) Soils (C6)	Iric Soil Present?	Yes X I icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3) al Test (D5) Iydrology Present?)

Project/Site: Pe	rcheron		Cit	y/County:	Boardman/	Morrow Co	ounty .	9	Sampling Date	e: 10/14/20)21
Applicant/Owner:	Birch Infrastructure, LLC						State: Q	DR.	Sampling	Point:	. 10
Investigator(s):	Sonya Templeton and Margr	et Harburg		Section,	Township, F	Range: Sec.	. 28, T.3N.	, R.24E., V	V.M.		
Landform (hillslope, te	errace, etc.): Terrace				Local re	elief (concave	e, convex, n	one):	Convex .	Slope (%)	. <u>-</u> 3%
Subregion (LRR):	(B) Columbia/Snake River Pl	ateau L	at: 45.	707665		Long: -119	9.816567		Datur	n: NAD83	
Soil Map Unit Name	Sagehill fine sand	y loam hummocky (l	Jnit 55	B) , 2-5% sl	opes; Non-h	nydric		NWI class	sification:	No	one
Are climatic / hydrol	ogic conditions on the site typ	pical for this time of	/ear?			Yes	Х	No	(If no, expl	ain in Rem	ıarks)
Are Vegetation	,Soil	, or Hydrology	sig	nificantly dis	sturbed?	Are "Norm	al Circum	stances" p	resent?	Yes X	<u>No</u>
Are Vegetation	,Soil	, or Hydrology	nat	turally proble	ematic?	(If needed	, explain a	ny answer	s in Remarks	.)	
SUMMARY OF	FINDINGS – Attach	site map show	ving s	ampling	point loc	cations, t	transect	ts, impo	rtant featu	ires, etc	
Hydrophytic Vegeta	ation Present?	Yes	No	X							
Hydric Soil Present	?	Yes	No	X	Is the Sam	pled Area					
Wetland Hydrology	Present?	Yes	No	Χ	within a W	/etland?	۱	/es	No	X	
Precipitation prior to	Ŭ	e AgACIS Boardma the two weeks prior.		her station,	0.00 inche	s of precipit	tation was	received c	on the day of f	ieldwork aı	nd 0.14
Remarks:											

Plot located approximately 1 foor higher in elevation than Plot 9.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species
1 2				That Are OBL, FACW, or FAC:(A)
3. 4.				Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size: <u>10' r</u>) 1.	0%	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2				Prevalence Index worksheet: Total % Cover of: Multiply by:
4				OBL species 0 x 1 = 0 FACW species 0 x 2 = 0
Herb Stratum (Plot size:5' r)	0%	= Total Cover		FAC species 35 x 3 = 105 FACU species 66 x 4 = 264
1. Sphaerophysa salsula	60%	Yes	FACU	UPL species <u>0</u> x 5 = <u>0</u>
2. Atriplex heterosperma	30%	Yes	FAC*	Column Totals: <u>101</u> (A) <u>369</u> (B)
3. Amaranthus species	5%	No	FACU*	Prevalence Index = $B/A = \frac{3.65}{2}$
4. Verbena bracteata	5%	No	FAC	Hydrophytic Vegetation Indicators:
5. Solanum nigrum	1%	No	FACU	Dominance Test is >50%
6.				Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide supporting
8.				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
0				
11				¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: <u>10' r</u>)	101%	= Total Cover		be present.
<u>1.</u> 2				Hydrophytic
% Bare Ground in Herb Stratum 0%		= Total Cover r of Biotic Crust		Vegetation Yes <u>No X</u> Present?
	% Cove			riesent?
Remarks: *Assumed.				

SOIL Sampling Point: 10 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** Loc² ³Texture (inches) Color (moist) % Color (moist) % Type¹ Remarks LS 0-14 10YR3/2 99 7.5YR 3/4 С Μ 1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. ³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay) Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Sandy Redox (S5) ____ 1 cm Muck (A9) (**LRR C**) Histosol (A1) ____ 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present, Sandy Mucky Mineral (S1) Vernal Pools (F9) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Х Depth (inches): Hydric Soil Present? Yes No Remarks[.] HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Х Depth (inches): No х ____ Water Table Present? Depth (inches): >14" Wetland Hydrology Present? Yes Saturation Present? No Х Depth (inches): >14" Yes _____ No X Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Soils very dry throughout.

Project/Site: P	ercheron		City/County:	Boardman/ Morrov	v County	Sampling Date	e: 10/14/2021	
Applicant/Owner:	Birch Infrastructure, LLC				State: OR	Sampling	g Point:	11 .
Investigator(s):	Sonya Templeton and Mar	gret Harburg	Section,	Township, Range:	Sec. 28, T.3N., R.24E	., W.M.		
Landform (hillslope,	terrace, etc.): Terrace			Local relief (co	ncave, convex, none):	Si. Concave	Siope (%): <3	%
Subregion (LRR):	(B) Columbia/Snake River	Plateau .	Lat: 45.707396	Long:	-119.816674	Datun	n: NAD83	
Soil Map Unit Nam	e: Sagehill fine sar	ndy loam hummocky	(Unit 55B) , 2-5% s	lopes; Non-hydric	NWI c	lassification:	None	
Are climatic / hydro	ologic conditions on the site	ypical for this time of	f year?	Yes	X No	(If no, expl	ain in Remarks	;)
Are Vegetation	,Soil	, or Hydrology _	significantly d	isturbed? Are "N	lormal Circumstances	" present?	Yes <u>X</u> No	<u> </u>
Are Vegetation	,Soil	, or Hydrology	naturally prob	lematic? (If nee	eded, explain any ans	vers in Remarks.	.)	
SUMMARY OF	FINDINGS – Atta	ch site map sho	wing sampling	g point locatio	ns, transects, im	portant feat	ures, etc.	
		V						
Hydrophytic Vege	tation Present?	Yes X	No					
Hydrophytic Vege Hydric Soil Preser		Yes X Yes X	No No	Is the Sampled A	rea			
	nt?			Is the Sampled A within a Wetland		X No		
Hydric Soil Preser	nt? y Present? o fieldwork: According to	Yes X Yes X	No No an weather station,	within a Wetland			ieldwork and 0	.14
Hydric Soil Preser Wetland Hydrolog	nt? y Present? o fieldwork: According to	Yes X Yes X the AgACIS Boardm	No No an weather station,	within a Wetland	? Yes		ieldwork and 0	.14
Hydric Soil Preser Wetland Hydrolog Precipitation prior t Remarks:	nt? y Present? o fieldwork: According to	Yes X Yes X the AgACIS Boardm g the two weeks prior	No No an weather station, r.	within a Wetland	? Yes		ieldwork and 0	.14
Hydric Soil Preser Wetland Hydrolog Precipitation prior t Remarks:	t? y Present? to fieldwork: According to inches during kimately half a foot lower in e	Yes X Yes X the AgACIS Boardm g the two weeks prior	No No an weather station, r.	within a Wetland	? Yes		ieldwork and 0	.14
Hydric Soil Preser Wetland Hydrolog Precipitation prior t Remarks: Plot located approx	t? y Present? to fieldwork: According to inches during kimately half a foot lower in e	Yes X Yes X the AgACIS Boardm g the two weeks prior	No No an weather station, r.	within a Wetland	? Yes	d on the day of f	ieldwork and 0	.14
Hydric Soil Preser Wetland Hydrolog Precipitation prior t Remarks: Plot located approx	t? y Present? to fieldwork: According to inches during kimately half a foot lower in e	Yes X Yes X the AgACIS Boardm g the two weeks prior elevation than Plot 12	No No an weather station, r. 2.	within a Wetland	? Yes	d on the day of f	ieldwork and 0	.14

1. <u>Elaeagnus angustifolia</u> 2	80%	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
3. 4.	80%	= Total Cover		Total Number of Dominant Species Across All Strata: <u>4</u> (B)
Sapling/Shrub Stratum (Plot size: <u>10' r</u>) 1.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2.				Prevalence Index worksheet: Total % Cover of: Multiply by:
4				OBL species 55 x 1 = 55 FACW species 0 x 2 = 0
Herb Stratum (Plot size:5' r)	0%	= Total Cover		FAC species $125 \times 3 =$ 375 FACU species $0 \times 4 =$ 0
1. Schoenoplectus americanus	55%	Yes	OBL	UPL species 0 x 5 = 0
2. Xanthium strumarium	25%	Yes	FAC	Column Totals: <u>180</u> (A) <u>430</u> (B)
3. Atriplex heterosperma	20%	Yes	FAC*	Prevalence Index = $B/A = \frac{2.39}{2.39}$
4				Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
11 <u>Woody Vine Stratum</u> (Plot size:10' r)	100%	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present.
2	0% % Cov	_ = Total Cover /er of Biotic Crust		Hydrophytic Vegetation Yes_X No Present?
Remarks: *Assumed FAC.				

SOIL						Sampling Point:	11
Profile Description: (Describe to	the depth nee	eded to document th	ne indicator or o	confirm the abs	ence of indicators	s.)	
Depth Mat	trix		Redox F	eatures			
(inches) Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks
0-8 10YR 2/1	100					SiL	
8-16 10YR 3/2	95	7.5YR 3/4	5	C	PL	SL	
Type: C=Concentration, D=Deplet	tion, RM=Redu	ced Matrix CS=Cover	red or Coated Sa	and Grains.	² Location: PL=P	ore Lining, M=Matrix.	
Texture: S = sand; Si = silt; C = cl	ay; L = loam or	loamy. Texture Modit	fier: co = coarse	e; f = fine; vf = ve	ry fine; + = heavy (more clay); - = light (less o	clay)
lydric Soil Indicators: (Applicab	le to all LRRs,					Problematic Hydric Soils	s ³ :
Histosol (A1)		Sandy Redox (S				(A9) (LRR C)	
Histic Epipedon (A2)		Stripped Matrix ((A10) (LRR B)	
Black Histic (A3)		Loamy Mucky Mi	. ,			/ertic (F18)	
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C)		Loamy Gleyed N Depleted Matrix	()			it Material (TF2) blain in Remarks)	
1 cm Muck (A9) (LRR D)		X Redox Dark Surf	. ,				
Depleted Below Dark Surface	(A11)	Depleted Dark S	. ,		³ Indicators of h	ydrophytic vegetation and	I
	(/(1))	Redox Depression	()			ology must be present,	
INICK DARK SURACE (ATZ)							
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)		Vernal Pools (F9))		uniess aistur	bed or problematic.	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)		Vernal Pools (F9	")		uniess distur	bed or problematic.	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)		Vernal Pools (F9))		uniess distur	bed or problematic.	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		Vernal Pools (F9)		uniess aistur	bed or problematic.	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		Vernal Pools (F9)				No
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches):		Vernal Pools (F9)	Ну	dric Soil Present?		No
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		Vernal Pools (F9)	Ну			No
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches):		Vernal Pools (F9)	Hy			No
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks:		Vernal Pools (F9	·)	Ну			No
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Cestrictive Layer (if present): Type: Depth (inches): Cemarks:		Vernal Pools (F9)) 	Ну			No
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators:	- e required; chea		·)	Hy	dric Soil Present?		
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Indicators:	e required; chea		·)	Ну	dric Soil Present?	Yes <u>X</u>	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one	e required; chea	ck all that apply)		Ну	dric Soil Present?	Yes X	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1)	e required; chea	ck all that apply) Salt Crust (B11)	2)	Hy	dric Soil Present?	Yes X icators (2 or more required ks (B1) (Riverine)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)		ck all that apply) Salt Crust (B11) Biotic Crust (B12	2) rates (B13)	Ну	dric Soil Present? <u>Secondary Ind</u> Water Mar Sediment I Drift Depos	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	e)	ck all that apply) Salt Crust (B11) Biotic Crust (B12 Aquatic Inverteb	2) rates (B13) e Odor (C1)			Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering	e) riverine)	ck all that apply) Salt Crust (B11) Biotic Crust (B12 Aquatic Invertebi Hydrogen Sulfide	2) rates (B13) e Odor (C1) pheres along Liv		Aric Soil Present?	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonriverine	e) riverine)	ck all that apply) Salt Crust (B11) Biotic Crust (B12 Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4)	ving Roots (C3)	Aric Soil Present?	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) in Water Table (C2) urrows (C8) Visible on Aerial Imagery	<u> </u>
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: Remarks: Remarks: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Drift Deposits (B3) (Nonrivering Surface Soil Cracks (B6) Inundation Visible on Aerial Im	e) iverine) ne)	ck all that apply) Salt Crust (B11) Biotic Crust (B12 Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4) uction in Tilled S ce (C7)	ving Roots (C3)	Secondary Ind Secondary Ind Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish B Saturation Shallow Ad	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: Primary Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Surface Soil Cracks (B6)	e) iverine) ne)	ck all that apply) Salt Crust (B11) Biotic Crust (B12 Aquatic Invertebu Hydrogen Sulfide Oxidized Rhizosj Presence of Red Recent Iron Red	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4) uction in Tilled S ce (C7)	ving Roots (C3)	Aric Soil Present?	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9)	e) iverine) ne)	ck all that apply) Salt Crust (B11) Biotic Crust (B12 Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4) uction in Tilled S ce (C7)	ving Roots (C3)	Secondary Ind Secondary Ind Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish B Saturation Shallow Ad	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3)	<u> </u>
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye	e) riverine) ne) nagery (B7)	ck all that apply) Salt Crust (B11) Biotic Crust (B12 Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Thin Muck Surfa Other (Explain in	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4) uction in Tilled S ce (C7)	ving Roots (C3) Soils (C6)	Secondary Ind Secondary Ind Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish B Saturation Shallow Ad	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3)	<u> </u>
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: Remarks: Remarks: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye	e) riverine) ne) nagery (B7)	ck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebi Hydrogen Sulfide Oxidized Rhizosj Presence of Red Recent Iron Red Thin Muck Surfa Other (Explain in	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4) uction in Tilled S ce (C7) i Remarks)	ving Roots (C3) Soils (C6)	Secondary Ind Secondary Ind Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish B Saturation Shallow Ac X FAC-Neutra	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye Water Table Present? Ye	e) riverine) ne) nagery (B7)	ck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebi Hydrogen Sulfide Oxidized Rhizosj Presence of Red Recent Iron Red Thin Muck Surfar Other (Explain in No X E	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4) uction in Tilled S ce (C7) h Remarks)	ving Roots (C3) Soils (C6)	Secondary Ind Secondary Ind Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish B Saturation Shallow Ac X FAC-Neutra	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3) al Test (D5)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Drift Deposits (B3) (Nonrivering Surface Soil Cracks (B6) Inundation Visible on Aerial Im Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ye Water Table Present? Ye	e) iverine) ne) sssssss	ck all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebi Hydrogen Sulfide Oxidized Rhizosj Presence of Red Recent Iron Red Thin Muck Surfa Other (Explain in No X E No X E	2) rates (B13) e Odor (C1) pheres along Liv luced Iron (C4) uction in Tilled S ce (C7) a Remarks) Depth (inches): Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6) 	Secondary Ind Secondary Ind Water Mar Sediment I Drift Depos Drainage F Dry-Seaso Crayfish B Saturation Shallow Ad X FAC-Neutra Wetland H	Yes X icators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery quitard (D3) al Test (D5)	<u>1)</u> (C9)

Project/Site: Percheron		City/County:	Boardman/ Morr	ow County Sampling Date: 10/14/2021
Applicant/Owner: Birch Infrastructure, LLC	•	. , ,		State: OR Sampling Point: 12
Investigator(s): Sonya Templeton and Margret Ha	arburg	Sectio	on, Township, Rai	nge: Sec. 28, T.3N., R.24E., W.M.
Landform (hillslope, terrace, etc.): Terrace	0		Local relief (concave, convex, none): None Slope (%): <3%
Subregion (LRR): (B) Columbia/Snake River Platea	u.L	at: 45.706846	Lon	g: 119.816699 Datum: NAD83
Soil Map Unit Name: Sagehill fine sandy loa	•	•		
Are climatic / hydrologic conditions on the site typical				s X No (If no, explain in Remarks)
Are Vegetation,Soil, or				"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or SUMMARY OF FINDINGS – Attach site		naturally probl		eeded, explain any answers in Remarks.)
		No		nis, transects, important leatures, etc.
		No X	Is the Sampled	Area
,		No X	within a Wetlar	N .
				precipitation was received on the day of fieldwork and 0.14
inches during the termination inches during the t				
Remarks:				
Plot 12 slightly higher in elevation than Plot 11.				
VEGETATION				1
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' r</u>)	% Cover	Species?	Status	Number of Dominant Species
1. <u>Elaeagnus angustifolia</u>	50%	Yes	FAC	That Are OBL, FACW, or FAC: <u>2</u> (A)
-				
3.				Total Number of Dominant
4.				Species Across All Strata: 3 (B)
	50% =	Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' r</u> _)				Percent of Dominant Species
1. Artemisia tridentata	10%	Yes	NOL	That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
2.				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4				OBL species 0 _x 1 = 0
5				FACW species x 2 =0
	10% =	Total Cover		FAC species $125 \times 3 = 375$
Herb Stratum (Plot size:5' r)				FACU species $5 \times 4 = 20$
1. <u>Atriplex heterosperma</u>	70%	Yes	FAC*	UPL species $11 \times 5 = 55$
2. Xanthium strumarium	5%	<u>No</u>	FAC	Column Totals: <u>141</u> (A) <u>450</u> (B) Prevalence Index = $B/A = \frac{3.19}{3.19}$
Nepeta cataria Onopordum acanthium	- ^{5%} - 1%	- No No	FACU NOL	Prevalence Index = B/A = <u>3.19</u> Hydrophytic Vegetation Indicators:
5.	1 70			X Dominance Test is >50%
6.				Prevalence Index is $\leq 3.0^{1}$
7.				Morphological Adaptations ¹ (Provide supporting
8.				data in Remarks or on a separate sheet)
9.				Problematic Hydrophytic Vegetation ¹ (Explain)
1				
11.				¹ Indicators of hydric soil and wetland hydrology must
	81% =	Total Cover		be present.
Woody Vine Stratum (Plot size:10' r)				
1.				
۴ ۱				Hydrophytic
	0% =	Total Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum 19%	% Cover o	of Biotic Crust		Present?
Remarks: *Assumed FAC.				·

AKS Engineering Forestry, LLC 8858-04

SOIL Sampling Point: 12 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Depth **Redox Features** Loc² ³Texture (inches) Color (moist) % Color (moist) % Type¹ Remarks 0-10 10YR 3/2 100 SL 10-16 LS 10YR 3/2 100 Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. ³Texture: S = sand; Si = silt; C = clay; L = loam or loamy. Texture Modifier: co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay) Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Sandy Redox (S5) ____ 1 cm Muck (A9) (**LRR C**) Histosol (A1) 2 cm Muck (A10) (LRR B) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present, Sandy Mucky Mineral (S1) Vernal Pools (F9) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Х Depth (inches): Hydric Soil Present? Yes No Remarks: 4 inch duff layer present. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Dry-Season Water Table (C2) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? No Х Depth (inches): Yes No х Water Table Present? >16" Wetland Hydrology Present? Yes Depth (inches): Yes No X Saturation Present? No Х Depth (inches): >16" Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Soils very dry throughout.

Project/Site: Percheron			City/County:	Boardman/ Morrow	County	Sampling Da	te: 3/31/2022		
Applicant/Owner: Birch Inf	rastructure, LLC			. –	State: OR	Sampling	Point: 13		
Investigator(s): Sonya Templeton, Margret Harburg, Stacey Reed, PWS Section, Township, Range: Sec. 28, T.3N., R.24E., W.M.									
Landform (hillslope, terrace, etc	c.): Terrace			Local relief (cond	ave, convex, none):	Concave .	Slope (%): <3%		
Subregion (LRR): (B) Colu	mbia/Snake River Plate	au Lat	45.707886	Long: -	119.815872	Datum	NAD83		
Soil Map Unit Name:	Sagehill fine sandy lo	am hummocky (Un	it 55B) , 2-5% sl	opes; Non-hydric	NWI cla	assification:	None		
Are climatic / hydrologic con	ditions on the site typica	I for this time of yea	ar?	Yes	No <u></u> X	(If no, expla	iin in Remarks)		
Are Vegetation	_,Soil, c	r Hydrology	_significantly di	sturbed? Are "No	rmal Circumstances"	present?	Yes X No		
Are Vegetation	_,Soil, o	r Hydrology	naturally probl	ematic? (If need	ed, explain any answ	ers in Remarks.)			
SUMMARY OF FIN	DINGS – Attach s	ite map showi	ng sampling	point location	s, transects, im	portant featu	ires, etc.		
Hydrophytic Vegetation Pre	sent? Ye	s X No							
Hydric Soil Present?	Ye	s X No)	Is the Sampled Are	ea				
Wetland Hydrology Present	? Ye	s <u>X</u> No)	within a Wetland?	Yes X	(No			
Precipitation prior to fieldwor	Ũ	•		0.00 inches of prec	ipitation was received ormal.	d on the day of fie	eldwork and 0.05		
Remarks:									

Dominance Test worksheet:
Number of Dominant Species
That Are OBL, FACW, or FAC: <u>3</u> (A)
Total Number of Dominant
Species Across All Strata: <u>3</u> (B)
Percent of Dominant Species
That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species 0 X 1 = 0
FACW species x 2 =0
FAC species $107 \times 3 = 321$ FACL species $0 \times 4 = 0$
UPL species $0 \times 5 = 0$
Column Totals: <u>107</u> (A) <u>321</u> (B) Prevalence Index = $B/A = \frac{3.00}{3.00}$
Hydrophytic Vegetation Indicators:
X Dominance Test is >50% X Prevalence Index is $\leq 3.0^{1}$
Morphological Adaptations ¹ (Provide supporting
data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
¹ Indicators of hydric soil and wetland hydrology must
be present.
Hydrophytic
Vegetation Yes X No
Present?

SOI	
-----	--

Depth	Matrix	K		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks	
0-2	10YR 2/1	100					SiL		
2-6	10YR 2/1	98	7.5YR 3/4	2	С	PL	SiL		
6-14	10YR 4/2	95	7.5YR 3/4	3	С	М	SCL		
	tration, D=Depletion						Pore Lining, M=Matrix.		
exture: S = san	d; Si = silt; C = clay	; L = loam or	loamy. Texture Mo	odifier: co = coars	se; f = fine; vf = ve	ry fine; + = heavy	(more clay); - = light (les	s clay)	
ydric Soil Indic Histosol (A1)	ators: (Applicable	to all LRRs,	unless otherwise Sandy Redox	,			r Problematic Hydric So ck (A9) (LRR C)	oils ³ :	
Histic Epiped	on (A2)	-	Stripped Matri	x (S6)		2 cm Muc	ck (A10) (LRR B)		
Black Histic (A3)	-	Loamy Mucky	Mineral (F1)		Reduced	Vertic (F18)		
Hydrogen Su	lfide (A4)	-	Loamy Gleyed	l Matrix (F2)		Red Pare	ent Material (TF2)		
	ers (A5) (LRR C)	-	X Depleted Matr	ix (F3)		Other (Ex	plain in Remarks)		
1 cm Muck (A	, (,	-	X Redox Dark Su	()		3			
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)						³ Indicators of hydrophytic vegetation and			
	Thick Dark Surface (A12) Redox Depressions (F8)								
	()	-		. ,		-	drology must be present,		
Sandy Mucky	Mineral (S1)	-	Redox Depres Vernal Pools (. ,		-	drology must be present, urbed or problematic.		
Sandy Mucky Sandy Gleyed	v Mineral (S1) d Matrix (S4)	-		. ,		-			
Sandy Mucky Sandy Gleyed Sestrictive Layer Type:	v Mineral (S1) d Matrix (S4)	-		. ,		unless distu	urbed or problematic.		
Sandy Mucky Sandy Gleyed Restrictive Layer Type: Depth (inches):	v Mineral (S1) d Matrix (S4)	-		. ,	Ну	-	urbed or problematic.	_ No	
Sandy Mucky Sandy Gleyed Sestrictive Layer Type:	v Mineral (S1) d Matrix (S4)			. ,	Ну	unless distu	urbed or problematic.	_ No	
Sandy Mucky Sandy Gleyed Restrictive Layer Type: Depth (inches):	v Mineral (S1) d Matrix (S4)			. ,	Ну	unless distu	urbed or problematic.	_ No	
Sandy Mucky Sandy Gleyed Restrictive Layer Type: Depth (inches): Remarks:	d Mineral (S1) d Matrix (S4) r (if present):			. ,	Hy	unless distu	urbed or problematic.	_ No	
Sandy Mucky Sandy Gleyer restrictive Layer Type: Depth (inches): remarks:	d Mineral (S1) d Matrix (S4) r (if present):			. ,	Ну	unless distu	urbed or problematic.	_ No	
Sandy Mucky Sandy Gleyed Type: Depth (inches): emarks: IYDROLOGY Vetland Hydrolo	d Mineral (S1) d Matrix (S4) r (if present):	- - equired; chec	Vernal Pools (. ,	Ну	unless distu	urbed or problematic.		
Sandy Mucky Sandy Gleyed Type: Depth (inches): temarks: IYDROLOGY Vetland Hydrolo	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: s (minimum of one r	- - - - - - - - - - - - - - - - - - -	Vernal Pools (F9)	Ну	unless distu dric Soil Present	urbed or problematic.		
Sandy Mucky Sandy Gleyer Type: Depth (inches): emarks: YDROLOGY /etland Hydrolo rimary Indicators Surface Wate	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: s (minimum of one r er (A1)	equired; chec	Vernal Pools (F9)	Hy	unless distu dric Soil Present	ribed or problematic. Yes X dicators (2 or more requir arks (B1) (Riverine)	red)	
Sandy Mucky Sandy Gleyed estrictive Layer Type: Depth (inches): emarks: IYDROLOGY /etland Hydrolo rimary Indicators Surface Wate High Water T	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: c (minimum of one r er (A1) fable (A2)	equired; chec	Vernal Pools (F9)	Hy	unless distu dric Soil Present Secondary In Water Ma Sediment	<pre>circled or problematic. circled or problematic. c</pre>	red)	
Sandy Mucky Sandy Gleyed Type: Depth (inches): emarks: IYDROLOGY Vetland Hydrolo rimary Indicators Surface Wate High Water T Saturation (A	w Mineral (S1) d Matrix (S4) r (if present): gy Indicators: s (minimum of one r er (A1) able (A2) 3)	- 	k all that apply) Salt Crust (B1 Biotic Crust (B Aquatic Inverte	F9) 1) 12) ebrates (B13)	ну	unless distu dric Soil Present Secondary In Water Ma Sediment Drift Depo	dicators (2 or more requir arks (B1) (Riverine) t Deposits (B2) (Riverine)	red)	
Sandy Mucky Sandy Gleyed Type: Depth (inches): temarks: IYDROLOGY Vetland Hydrolo 'rimary Indicators Surface Wate High Water T Saturation (A X_Water Marks (Mineral (S1) d Matrix (S4) r (if present): gy Indicators: c (minimum of one r er (A1) table (A2) 3) (B1) (Nonriverine)		k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Inverte Hydrogen Sulf	F9) 1) 12) ebrates (B13) ide Odor (C1)		dric Soil Present	<pre>irbed or problematic. irbed or problema</pre>	red)	
Sandy Mucky Sandy Gleyer Type: Depth (inches): Remarks: TYDROLOGY Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A X Water Marks (Sediment Dep	<pre>v Mineral (S1) d Matrix (S4) r (if present): gy Indicators: (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriv</pre>	- - erine)	Vernal Pools (F9) 1) 12) ebrates (B13) ide Odor (C1) ospheres along L	iving Roots (C3)	dric Soil Present	dicators (2 or more requir arks (B1) (Riverine) t Deposits (B2) (Riverine)	red)	
Sandy Mucky Sandy Gleyer Type: Depth (inches): Cemarks: Cema	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: a (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriverine)	- - erine)	Vernal Pools (F9) 1) 12) ebrates (B13) ïde Odor (C1) ospheres along L educed Iron (C4)	iving Roots (C3)	dric Soil Present	tribed or problematic. tribe	red))	
Sandy Mucky Sandy Gleyed Iestrictive Layer Type: Depth (inches): IPDROLOGY Vetland Hydrolo rimary Indicators Surface Wate High Water T Saturation (A X Water Marks (Sediment De Drift Deposits Surface Soil (Mineral (S1) d Matrix (S4) r (if present): gy Indicators: a (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriverine)		Vernal Pools (F9) 1) 12) ebrates (B13) ide Odor (C1) ospheres along L educed Iron (C4) eduction in Tilled	iving Roots (C3)	dric Soil Present	ribed or problematic. Provide a constraints of the second	red))	
Sandy Mucky Sandy Gleyed Type: Depth (inches): iemarks: IYDROLOGY Vetland Hydrolo rimary Indicators Surface Wate High Water T Saturation (A X Water Marks (Sediment De Drift Deposits Surface Soil (Inundation Vi	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: c (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriv c (B3) (Nonriverine Cracks (B6)		Vernal Pools (F9) 1) 12) ebrates (B13) ide Odor (C1) ospheres along L educed Iron (C4) eduction in Tilled face (C7)	iving Roots (C3)	dric Soil Present	tribed or problematic. tribe	red))	
Sandy Mucky Sandy Gleyer Type: Depth (inches): Cemarks: Semarks: Comparison of the second Surface Wate High Water T Saturation (A X Water Marks (Sediment De) Drift Deposits Surface Soil (Inundation Vi Water-Staine	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: a (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriverine) cracks (B6) sible on Aerial Imaged d Leaves (B9)		k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur	F9) 1) 12) ebrates (B13) ide Odor (C1) ospheres along L educed Iron (C4) eduction in Tilled face (C7)	iving Roots (C3)	dric Soil Present	Autor problematic. Provide and problematic. Provide and problematic. Provide and problematic. Patterns (B10) Patterns (D10) Patterns (D1	red))	
Sandy Mucky Sandy Gleyed Type: Depth (inches): Remarks: Semarks: TYDROLOGY Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A X Water Marks (Sediment De Drift Deposits Surface Soil (Inundation Vi	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: s (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriverine) Cracks (B6) sible on Aerial Imaged d Leaves (B9) ns:	erine)) gery (B7)	k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur Other (Explain	F9) 1) 12) brates (B13) ide Odor (C1) ospheres along L educed Iron (C4) eduction in Tilled face (C7) in Remarks)	iving Roots (C3) Soils (C6)	dric Soil Present	Autor problematic. Provide and problematic. Provide and problematic. Provide and problematic. Patterns (B10) Patterns (D10) Patterns (D1	red))	
Sandy Mucky Sandy Gleyer Type: Depth (inches): Remarks: TYDROLOGY Vetland Hydrolo Primary Indicators Surface Water High Water T Saturation (A X Water Marks (Sediment De Drift Deposits Surface Soil (Inundation Vi Water-Staine Surface Water Pr	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: c (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriverine) cracks (B6) sible on Aerial Imaged d Leaves (B9) ns: resent? Yes_	erine)) gery (B7)	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur Other (Explain No X	F9) 1) 12) ebrates (B13) ide Odor (C1) ospheres along L educed Iron (C4) educed Iron (C4) educed Iron (C4) eduction in Tilled face (C7) i in Remarks) Depth (inches):	iving Roots (C3) Soils (C6)	dric Soil Present	dicators (2 or more requir arks (B1) (Riverine) t Deposits (B2) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imager Aquitard (D3) tral Test (D5)	red))	
Sandy Mucky Sandy Gleyer Type: Depth (inches): Cemarks: Cema	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: a (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriverine) Cracks (B6) sible on Aerial Imaged d Leaves (B9) ns: resent? Yes_	erine)) gery (B7)	Vernal Pools (F9) 1) 12) ebrates (B13) ide Odor (C1) ospheres along L educed Iron (C4) educed Iron (C4) eduction in Tilled face (C7) in Remarks) Depth (inches): Depth (inches):	iving Roots (C3) Soils (C6)	dric Soil Present	tribed or problematic. tribed or problematic. triped or problematic. tripe	r <u>ed)</u>) ry (C9)	
Sandy Mucky Sandy Gleyer Type: Depth (inches): Remarks: TYDROLOGY Vetland Hydrolo Primary Indicators Surface Water High Water T Saturation (A X Water Marks (Sediment De Drift Deposits Surface Soil (Inundation Vi Water-Staine Surface Water Pr	Mineral (S1) d Matrix (S4) r (if present): gy Indicators: a (minimum of one r er (A1) able (A2) 3) (B1) (Nonriverine) posits (B2) (Nonriverine) Cracks (B6) sible on Aerial Imaged Leaves (B9) ns: resent? Yes_ ent? Yes_	erine)) gery (B7)	Vernal Pools (k all that apply) Salt Crust (B1 Biotic Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur Other (Explain No X	F9) 1) 12) ebrates (B13) ide Odor (C1) ospheres along L educed Iron (C4) educed Iron (C4) educed Iron (C4) eduction in Tilled face (C7) i in Remarks) Depth (inches):	iving Roots (C3) Soils (C6)	dric Soil Present	dicators (2 or more requir arks (B1) (Riverine) t Deposits (B2) (Riverine) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imager Aquitard (D3) tral Test (D5)	red))	

Project/Site: Percheron			City/County:	Boardman/ Morrow County	y <u>S</u> ar	mpling Date: 3/31/2	2022		
Applicant/Owner: Birch Infr	rastructure, LLC			. <u> </u>	tate: OR	Sampling Point:	14		
Investigator(s): Sonya Ter	Investigator(s): Sonya Templeton, Margret Harburg, Stacey Reed, PWS Section, Township, Range: Sec. 28, T.3N., R.24E., W.M.								
Landform (hillslope, terrace, etc	a.): Terrace			Local relief (concave, co	nvex, none): Cor	nvex Slope	(%): <3%		
Subregion (LRR): (B) Colur	nbia/Snake River Plat	eau La	: 45.707856	Long: -119.81	5792	Datum: NAD8	83		
Soil Map Unit Name:	Sagehill fine sandy	loam hummocky (Ur	nit 55B) , 2-5% s	opes; Non-hydric	NWI classi	ification:	None		
Are climatic / hydrologic cond	Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)								
Are Vegetation	_,Soil	, or Hydrology	_significantly di	sturbed? Are "Normal C	Circumstances" pres	sent? Yes	s <u>X_</u> No		
Are Vegetation	,Soil	, or Hydrology	naturally prob	ematic? (If needed, exp	plain any answers ir	n Remarks.)			
SUMMARY OF FIN	DINGS – Attach	site map showi	ng sampling	point locations, tra	nsects, import	tant features,	etc.		
Hydrophytic Vegetation Pres	sent? Y	′es X N	o						
Hydric Soil Present?	Y	′esN	D X	Is the Sampled Area					
Wetland Hydrology Present	? Y	′es N	o <u>X</u>	within a Wetland?	Yes	No X	_		
Precipitation prior to fieldwor	•	•		0.00 inches of precipitatio ch are wetter than normal.	n was received on t	the day of fieldwor	k and 0.05		
Remarks:									

Plot location approximately 2-3 feet higher in elevation than Plot 13.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' r</u>)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				
3				Total Number of Dominant
4			. <u> </u>	Species Across All Strata: 2 (B)
	=	Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' r</u>				Percent of Dominant Species
1.				That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4				OBL species 0 x 1 = 0
5				FACW species <u>0</u> x 2 = <u>0</u>
	=	Total Cover		FAC species x 3 =273
Herb Stratum (Plot size: ^{5' r})				FACU species <u>6</u> x 4 = <u>24</u>
1. Atriplex heterosperma	55%	Yes	FAC*	UPL species <u>5</u> x 5 = <u>25</u>
2. <u>Bassia scoparia</u>	35%	Yes	FAC	Column Totals: <u>102</u> (A) <u>322</u> (B)
3. Sphaerophysa salsula	5%	_ No	FACU	Prevalence Index = B/A = 3.16
4. Onopordum acanthium	5%	No	NOL	Hydrophytic Vegetation Indicators:
5. <u>Chenopodium species</u>	1%	No	FAC*	X Dominance Test is >50%
6. Amaranthus species	1%	No	FACU*	Prevalence Index is ≤3.0 ¹
7			. <u> </u>	Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				
11				¹ Indicators of hydric soil and wetland hydrology must
	102% =	Total Cover		be present.
Woody Vine Stratum (Plot size:10' r				
<u>1.</u> 2.				Hydrophytic
Z	0% =	Total Cover	<u> </u>	
% Bare Ground in Herb Stratum 0%		of Biotic Crust		Vegetation Yes X No Present?
	- ³⁰ Cover C			Flebell!
Remarks: *Assumed.				
Assumed.				

SOIL							Sampling Point:	14
Profile Descrip	otion: (Describe to the	depth need	ed to documen	t the indicator or	confirm the a	absence of indicators.)		
Depth	Matrix			Redox I	eatures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks
0-14	10YR 4/3	100					LS	
				_				
							·	
						·		
¹ Type: C=Conce	entration, D=Depletion,	RM=Reduce	d Matrix CS=Co	vered or Coated S	and Grains.	² Location: PL=Pore	Lining, M=Matrix.	
³ Texture: S = sa	and; Si = silt; C = clay; L	= loam or lo	amy. Texture Mo	odifier: co = coarse	e; f = fine; vf =	- very fine; + = heavy (mo	re clay); - = light (less	clay)
Hvdric Soil Indi	icators: (Applicable to	o all LRRs. u	nless otherwise	e noted.)		Indicators for Pro	blematic Hydric Soi	ls ³ :
Histosol (A1			Sandy Redox			1 cm Muck (As	-	
Histic Epipe	edon (A2)		Stripped Matri	ix (S6)		2 cm Muck (A	10) (LRR B)	
Black Histic	: (A3)		_Loamy Mucky	Mineral (F1)		Reduced Verti	ic (F18)	
Hydrogen S	Sulfide (A4)	_	_Loamy Gleye	d Matrix (F2)		Red Parent M	aterial (TF2)	
Stratified La	ayers (A5) (LRR C)		Depleted Mat	rix (F3)		Other (Explain	in Remarks)	
1 cm Muck	(A9) (LRR D)	_	Redox Dark S	Surface (F6)		3		
	elow Dark Surface (A1	1)	Depleted Darl				ophytic vegetation an	d
	Surface (A12)	_	Redox Depres	. ,			gy must be present,	
	ky Mineral (S1)	_	Vernal Pools	(F9)		unless disturbed	l or problematic.	
Sandy Gley	ved Matrix (S4)							
Restrictive Lay	er (if present):							
Туре:								
Depth (inches):					Hydric Soil Present?	Yes	No <u>X</u>
Remarks:								
	•••							
HYDROLOG	logy Indicators:							
-	ors (minimum of one red	wirod: chook	all that apply)			Secondary Indicat	ore (2 or more require	d)
	· · ·	julieu, check		1)			ors (2 or more require	<u>u)</u>
Surface Wa	. ,	_	Salt Crust (B1	,			B1) (Riverine)	
High Water	()		Biotic Crust (E	,			osits (B2) (Riverine)	
Saturation ((AS) (s (B1) (Nonriverine)	_	Aquatic Invert	fide Odor (C1)		Drainage Patte	(B3) (Riverine)	
	eposits (B2) (Nonrive	ino)	_ · ·	cospheres along Li	ving Poots (C		/ater Table (C2)	
	its (B3) (Nonriverine)			Reduced Iron (C4)	ving roots (O	Crayfish Burro	()	
	il Cracks (B6)			eduction in Tilled	Soils (C6)		ible on Aerial Imagery	(C9)
	Visible on Aerial Image	rv (B7)	Thin Muck Su			Shallow Aquita		(00)
	ned Leaves (B9)		Other (Explain	. ,		FAC-Neutral T	()	
Field Observati	· · /		_ 、.	,				
Surface Water I		N	o <u>X</u>	Depth (inches):				
				,	<u></u>	Watland Und	rology Procont?	
Water Table Pre Saturation Pres		N	o <u>X</u>	Depth (inches): Depth (inches):	<u>>14"</u> >14"		rology Present?	No X
(includes capilla		N	<u> </u>	Deput (inches):	~14	.	Yes	
· ·	rded Data (stream gaug	je, monitoring	y well, aerial pho	tos, previous inspe	ections), if ava	ailable:		
Demark								
Remarks: Soils dry through	hout							
u, inougi								

Project/Site: Perch	ieron		. <u>.</u> Ci	ity/County: E	Boardman/ I	Morrow County		. s	Sampling Da	ate: 3/31/20	022
Applicant/Owner: Bire	rch Infrastructure, LLC	i -				State	: OR		Sampling	g Point:	15
Investigator(s): Sor	nya Templeton, Margret H	larburg, Stacey Reed, F	'WS	Section,	Township, F	Range: <u>Sec. 28, T.3</u>	N., R.24	4E., W.	.M.		
Landform (hillslope, terra	ace, etc.): Terrace	¢.			Local re	elief (concave, convex	k, none):	. Co	oncave .	Slope (%	%): <3%
Subregion (LRR): (B)) Columbia/Snake Rive	er Plateau	Lat: 45	5.705524		Long: -119.81792	7.		Datı	um: NAD83	3.
Soil Map Unit Name:	Royal Silt Lor	am (Unit 53A), 0% to :	3% slope	s; Non-hydric	>		NWI	classif	fication:	Ne	one
Are climatic / hydrologi	ic conditions on the si	e typical for this time	of year?			Yes	No	Х	(If no, exp	plain in Rer	marks)
Are Vegetation	,Soil	, or Hydrology	si	ignificantly dis	sturbed?	Are "Normal Circu	imstance	es" pre	sent?	Yes	<u>X</u> No
Are Vegetation SUMMARY OF FII	,Soil	, or Hydrology	na	aturally proble	ematic?	(If needed, explair	ו any an	swers	in Remarks	s.)	
	Atta	ch site map sho	wing s	ampling r	point loc	ations, transed	cts, im	iporta	ant featu	res, etc	'•
Hydrophytic Vegetation	on Present?	Yes X	No								
Hydric Soil Present?		Yes	No	X	Is the San	npled Area					

Hydric Soli Present?	Yes		<u> </u>	is the Sampled Area				
Wetland Hydrology Present?	Yes	No	X	within a Wetland?	Yes	No	<u>X</u>	
Precipitation prior to fieldwork:	According to the AgACIS Boardr	man wea	ather station,	0.00 inches of precipitation	n was received o	on the day of field	dwork and 0.05	
	inches during the two weeks price	or. Cond	litions for Ma	rch are wetter than normal				
Remarks:								

Plot located within Intermittent Water 1.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species
		<u> </u>		
1. <u>Elaeagnus angustifolia</u> 2.	50%	Yes	FAC	That Are OBL, FACW, or FAC:(A)
3.				Total Number of Dominant
4.				Species Across All Strata:(B)
	50% = 1	Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)				Percent of Dominant Species
1				That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2.				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.				OBL species 0 x 1 = 0
5.				FACW species 1 x 2 = 2
	0% = 1	Total Cover		FAC species 110 x 3 = 330
Herb Stratum (Plot size:5' r)				FACU species 5 x 4 = 20
1. Atriplex heterosperma	50%	Yes	FAC*	UPL species x 5 =10
2. Xanthium strumarium	5%	No	FAC	Column Totals: <u>118</u> (A) <u>362</u> (B)
3. Nepeta cataria	5%	No	FACU	Prevalence Index = $B/A = \frac{3.07}{2}$
4. Elaeagnus angustifolia (sprouts)	5%	No	FAC	Hydrophytic Vegetation Indicators:
5. Onopordum acanthium	1%	No	NOL	X Dominance Test is >50%
6. Euthamia occidentalis	1%	No	FACW	Prevalence Index is ≤3.0 ¹
7. Bromus tectorum	1%	No	NOL	Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9.				Problematic Hydrophytic Vegetation ¹ (Explain)
10.				
11.				¹ Indicators of hydric soil and wetland hydrology must
	68% = 1	Total Cover		be present.
Woody Vine Stratum (Plot size:10' r)				
1				
2				Hydrophytic
		Total Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum <u>32%</u>	% Cover o	f Biotic Crust		Present?
Remarks:				
*Assumed FAC.				

SOIL							Sampling Point:	15
Profile Descript	ion: (Describe to t	the depth ne	eded to document	t the indicator or	confirm the abs	ence of indicators	5.)	
Depth	Matri	х		Redox F	eatures		<u>,</u>	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remark
0-8	10YR 3/2	100					LS	
8-17	10YR 4/3	95	7.5YR 3/4	5	C	M	LS	
	<u> </u>							
	·							
Type: C=Concer		on RM=Redu	Liced Matrix CS=Cov	vered or Coated S	and Grains	² Location: PL =Pr	pre Lining, M=Matrix.	
	•						more clay); - = light (less c	lav)
					,,		Problematic Hydric Soils	•
Histosol (A1)			, unless otherwise Sandy Redox				(A9) (LRR C)	•
Histic Epiped			Stripped Matri	. ,			(A10) (LRR B)	
Black Histic ((A3)		Loamy Mucky	Mineral (F1)		Reduced V	/ertic (F18)	
Hydrogen Su	ılfide (A4)		Loamy Gleyed	d Matrix (F2)		Red Paren	t Material (TF2)	
Stratified Lay	vers (A5) (LRR C)		Depleted Matr	rix (F3)		Other (Exp	lain in Remarks)	
1 cm Muck (A	A9) (LRR D)		Redox Dark S	urface (F6)		2		
Depleted Bel	ow Dark Surface (A	411)	Depleted Dark	(Surface (F7)		³ Indicators of h	ydrophytic vegetation and	
Thick Dark S	. ,		Redox Depres			-	ology must be present,	
Sandv Mucky	y Mineral (S1)		Vernal Pools ((F9)		unless distur	bed or problematic.	
	d Matrix (S4)				i			
Sandy Gleye	. ,							
Sandy Gleye	. ,							
Sandy Gleye	r (if present):				Нус	Iric Soil Present?	Yes I	No X
Sandy Gleye Restrictive Laye Type: Depth (inches):	r (if present):				Нус	Iric Soil Present?	YesI	No X
Sandy Gleye Sestrictive Laye Type: Depth (inches):	r (if present):				Нус	Iric Soil Present?	Yes I	No X
Sandy Gleye Sestrictive Laye Type: Depth (inches): Temarks:	r (if present):				Нус	Iric Soil Present?	YesI	No <u>X</u>
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks:	r (if present):				Нус	Iric Soil Present?	YesI	No X
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG	r (if present):	required; che	eck all that apply)		Нус		Yes I	
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG	r (if present): f pgy Indicators: s (minimum of one	required; che	eck all that apply)	1)	Нус	Secondary Indi	cators (2 or more required	
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Vetland Hydrolo Primary Indicators	r (if present):	required; che	Salt Crust (B1	,	Нус	<u>Secondary Indi</u> Water Mari		
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Vetland Hydrolo Primary Indicators Surface Wate	r (if present):	required; che		312)	Нус	<u>Secondary Indi</u> Water Mari Sediment I	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine)	
Sandy Gleye Cestrictive Laye Type: Depth (inches): Cemarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A	r (if present):		Salt Crust (B1	312) ebrates (B13)	Нус	Secondary Indi Water Mari Sediment I Drift Depos	cators (2 or more required ks (B1) (Riverine)	
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Primary Indicators Surface Wate High Water T Saturation (A Water Marks	r (if present):)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf	312) ebrates (B13)		Secondary Indi Water Mari Sediment I Drift Depos	<u>cators (2 or more required</u> ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine)	
Sandy Gleye Cestrictive Laye Type: Depth (inches): Remarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De	r (if present): pgy Indicators: s (minimum of one) er (A1) Table (A2) (3) (B1) (Nonriverine)) verine)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize	812) ebrates (B13) fide Odor (C1)		Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10)	
Sandy Gleye Comparison of the sector of the	r (if present): pgy Indicators: s (minimum of one er (A1) Table (A2) .3) (B1) (Nonriverine s (B3) (Nonriverine) verine)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R	312) ebrates (B13) fide Odor (C1) ospheres along Liv	ving Roots (C3)	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bu	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2)	
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Wetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil	r (if present): pgy Indicators: s (minimum of one er (A1) Table (A2) .3) (B1) (Nonriverine s (B3) (Nonriverine) verine) 9)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R	812) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S	ving Roots (C3)	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bu Saturation	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8)	
Sandy Gleye Sestrictive Laye Type: Depth (inches): Remarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V	r (if present): y pgy Indicators: s (minimum of one i er (A1) Table (A2) (B1) (Nonriverine posits (B2) (Nonriverine cracks (B6)) verine) 9)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron R	ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7)	ving Roots (C3)	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bi Saturation Shallow Ac	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (
Sandy Gleye Comparison of the sector of the	r (if present): pgy Indicators: s (minimum of one er (A1) Table (A2) A3) (B1) (Nonriverine s (B3) (Nonriverine Cracks (B6) isible on Aerial Imaged Leaves (B9)) verine) 9)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Su	ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7)	ving Roots (C3)	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bi Saturation Shallow Ac	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3)	
Sandy Gleye Cestrictive Laye Type: Depth (inches): Remarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V Water-Staine Sield Observatio	r (if present): y gy Indicators: s (minimum of one) er (A1) able (A2) a) (B1) (Nonriverine) (B1) (Nonriverine) cracks (B2) (Nonriverine) s (B3) (Nonriverine) bisible on Aerial Imaged Leaves (B9) biss:) verine) a) gery (B7)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Su	ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7)	ving Roots (C3) Soils (C6)	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bi Saturation Shallow Ac	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3)	
Sandy Gleye Cestrictive Laye Type: Depth (inches): Remarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V Water-Staine Surface Water P	r (if present): pgy Indicators: s (minimum of one) er (A1) Table (A2) (B1) (Nonriverine) (B1) (Nonriverine) (Cracks (B6)) (S1) (S1) (S1) (S1) (S1) (S1) (S1) (S1)) verine) a) gery (B7)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sun Thin Muck Sun Other (Explain	B12) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks)	ving Roots (C3) Soils (C6)	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bu Saturation Shallow Ac FAC-Neutr	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) sits (B3) (Riverine) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (quitard (D3)	
Sandy Gleye Restrictive Laye Type: Depth (inches): Remarks: HYDROLOG Metland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Surface Soil Inundation V	r (if present): pgy Indicators: s (minimum of one) er (A1) Table (A2) A3) (B1) (Nonriverine) posits (B2) (Nonriverine) Cracks (B6) isible on Aerial Imaged Leaves (B9) ons: resent? Yes sent? Yes) verine) a) gery (B7)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur Other (Explain NoX NoX	B12) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches):	ving Roots (C3) Soils (C6)	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bu Saturation Shallow Ac FAC-Neutr	<u>cators (2 or more required</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (Juitard (D3) al Test (D5)	
Sandy Gleye Sandy Gleye Type: Depth (inches): Remarks: TYDROLOG Vetland Hydrolo Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposite Surface Soil Inundation V Water-Staine Surface Water Prese Surface Water Prese (includes capillar	r (if present): pgy Indicators: s (minimum of one er (A1) Table (A2) (B1) (Nonriverine posits (B2) (Nonriverine (B3) (Nonriverine Cracks (B6) isible on Aerial Imaged Leaves (B9) ons: resent? Yes sent? Yes nt? Yes y fringe)) verine) a) gery (B7)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sul Other (Explain NoX NoX NoX	B12) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches): Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6) 	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bu Saturation Shallow Ac FAC-Neutr	cators (2 or more required ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (juitard (D3) al Test (D5)) C9)
Sandy Gleye Sandy Gleye Type: Depth (inches): Remarks: HYDROLOG Netland Hydrolo Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposite Surface Soil Inundation V Water-Staine Field Observatio Surface Water Prese Saturation Prese (includes capillar	r (if present): pgy Indicators: s (minimum of one er (A1) Table (A2) (B1) (Nonriverine posits (B2) (Nonriverine (B3) (Nonriverine Cracks (B6) isible on Aerial Imaged Leaves (B9) ons: resent? Yes sent? Yes nt? Yes y fringe)) verine) a) gery (B7)	Salt Crust (B1 Biotic Crust (B Aquatic Inverte Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron Re Thin Muck Sur Other (Explain NoX NoX	B12) ebrates (B13) fide Odor (C1) ospheres along Liv Reduced Iron (C4) eduction in Tilled S rface (C7) n in Remarks) Depth (inches): Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6) 	Secondary Indi Water Mari Sediment I Drift Depos Drainage F Dry-Seaso Crayfish Bu Saturation Shallow Ac FAC-Neutr	<u>cators (2 or more required</u> ks (B1) (Riverine) Deposits (B2) (Riverine) Sits (B3) (Riverine) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (Juitard (D3) al Test (D5)) C9)

Project/Site: Percheron		City/County: Boardman/	Morrow County	Sampling Date: 3/31/2022
Applicant/Owner: Birch Infrastruc	cture, LLC		State: OR	Sampling Point: 16
Investigator(s): Sonya Templetor	n, Margret Harburg, Stacey Reed, PWS	Section, Township,	Range: <u>Sec. 28, T.3N., R.24E.,</u>	W.M.
Landform (hillslope, terrace, etc.):	Terrace .	. Local	relief (concave, convex, none):	Concave Slope (%): <3%
Subregion (LRR): (B) Columbia/S	Snake River Plateau Lat	t: 45.705413	Long: -119.818335	Datum: NAD83
Soil Map Unit Name: Roy	al Silt Loam (Unit 53A), 0% to 3% sl	opes; Non-hydric	NWI cla	ssification: None
Are climatic / hydrologic conditions	s on the site typical for this time of yea	ar?	Yes <u>No X</u>	(If no, explain in Remarks)
Are Vegetation,Soi	il, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation,Soi	il, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS	-			
	Attach site map showing	g sampling point loo	cations, transects, impo	ortant features, etc.
Hydrophytic Vegetation Present?	Yes X No	0		

riyuropriyuc vegetation rieseni	165 X	110					
Hydric Soil Present?	Yes	No X	<u> </u>	Is the Sampled Area			
Wetland Hydrology Present?	Yes	No X	<u> </u>	within a Wetland?	Yes	X	No
Precipitation prior to fieldwork:	According to the AgACIS Boardr	nan weather	station, 0.	.00 inches of precipitation	was receive	ed on the	day of fieldwork and 0.05
	inches during the two weeks price	or. Conditions	s for Marc	h are wetter than normal.			
D							

Remarks:

Plot located near culverts under Tower Road.

VEGETATION

	Dominance Test worksheet: Number of Dominant Species	Indicator Status	Dominant Species?	Absolute % Cover	Tree Stratum (Plot size: <u>30' r</u> _)
2 (4)	· ·				
<u>3</u> (A)	That Are OBL, FACW, or FAC:3	FAC	Yes	20%	1. <u>Elaeagnus angustifolia</u> 2.
	Total Number of Dominant				3.
_3(B)	Species Across All Strata: 3				4.
			= Total Cover	20%	
	Percent of Dominant Species				Sapling/Shrub Stratum (Plot size: <u>10' r</u>)
<u>100%</u> (A/B)	That Are OBL, FACW, or FAC: <u>100%</u>				1
	Prevalence Index worksheet: Total % Cover of: Multiply by:				2
65	OBL species 65 x 1 =				4.
0	· · ·				5.
<u>153</u> 8	FAC species <u>51</u> x 3 = <u>1</u>		= Total Cover	0%	Herb Stratum (Plot size: _ ^{5'} r)
0	UPL species 0 x 5 =	OBL	Yes	65%	1. Schoenoplectus americanus
226 (B)	Column Totals: 118 (A) 2	FAC	Yes	25%	2. Xanthium strumarium
<u>1.92</u>	Prevalence Index = B/A = <u>1.9</u>	FAC*	No	5%	3. Cuscuta species
	Hydrophytic Vegetation Indicators:	FACU	No	1%	4. <u>Bassia scoparia</u>
	X Dominance Test is >50%	FAC	No	1%	5. Atriplex heterosperma
	X_Prevalence Index is ≤3.0 ¹	FACU	No	1%	6. <u>Nepeta cataria</u>
de supporting	Morphological Adaptations ¹ (Provide sup				7.
te sheet)	data in Remarks or on a separate she				8.
n ¹ (Explain)	Problematic Hydrophytic Vegetation ¹ (Ex				9
					10
ydrology must	¹ Indicators of hydric soil and wetland hydrolog				11
	be present.		= Total Cover	98%	Woody Vine Stratum (Plot size: 10' r _)
					1
	Hydrophytic				2
	Vegetation Yes X No Present?		= Total Cover er of Biotic Crust		% Bare Ground in Herb Stratum 2%
_	Present?	g both site visits		-	% Bare Ground in Herb Stratum <u>2%</u> Remarks: *Assumed FAC. <i>Schoenopluctus americanus</i> observe

SOIL						Sampling Point:	16
Profile Descrip	otion: (Describe to the de	epth needed to docun	nent the indicator or	confirm the abs	ence of indicators.)	
Depth	Matrix		Redox	Features			
(inches)	Color (moist)	% Color (moi	ist) %	Type ¹	Loc ²	³ Texture	Remarks
0-12	10YR 4/3	100				SL	
	·						
	- 						
	·						
¹ Type: C=Conce	- entration, D=Depletion, RM	M=Reduced Matrix CS=	Covered or Coated S	Sand Grains.	² Location: PL=Por	e Lining, M=Matrix.	
³ Texture: S = sa	and; Si = silt; C = clay; L =	loam or loamy. Texture	e Modifier: co = coars	e; f = fine; vf = ve	ry fine; + = heavy (m	ore clay); - = light (less cl	ay)
Hydric Soil Ind	icators: (Applicable to a	II LRRs, unless other	vise noted.)		Indicators for P	roblematic Hydric Soils	3.
Histosol (A ²		Sandy Re	•			A9) (LRR C)	
Histic Epipe	edon (A2)	Stripped N	/atrix (S6)		2 cm Muck (A10) (LRR B)	
Black Histic	: (A3)	Loamy Mu	ıcky Mineral (F1)		Reduced Ve	rtic (F18)	
Hydrogen S	Sulfide (A4)	Loamy Gle	eyed Matrix (F2)		Red Parent	Material (TF2)	
Stratified La	ayers (A5) (LRR C)	Depleted I	Matrix (F3)		Other (Expla	ain in Remarks)	
1 cm Muck	(A9) (LRR D)	Redox Da	rk Surface (F6)				
Depleted Be	elow Dark Surface (A11)	Depleted I	Dark Surface (F7)		³ Indicators of hy	drophytic vegetation and	
Thick Dark	Surface (A12)	Redox De	pressions (F8)		wetland hydro	logy must be present,	
Sandy Muc	ky Mineral (S1)	Vernal Po	ols (F9)		unless disturb	ed or problematic.	
Sandy Gley	ed Matrix (S4)						
Restrictive Lay	er (if present):						
Type:			_				
Depth (inches):		_	ну	dric Soil Present?	Yes N	lo X
Remarks:				I			
Shovel refusal a	t 12 inches due to cobbles	s and gravels.					
HYDROLOG	v						
	logy Indicators:						
-	ors (minimum of one requi	red: check all that apply	()		Secondary Indic	ators (2 or more required)	
Surface Wa		Salt Crust				s (B1) (Riverine)	_
High Water		Biotic Crus	. ,			eposits (B2) (Riverine)	
Saturation (vertebrates (B13)			ts (B3) (Riverine)	
	s (B1) (Nonriverine)	·	Sulfide Odor (C1)		·	atterns (B10)	
	eposits (B2) (Nonriverine	; ;	Rhizospheres along L	iving Roots (C3)		Water Table (C2)	
	its (B3) (Nonriverine)	·	of Reduced Iron (C4)	0 ()	Crayfish Bur	()	
	il Cracks (B6)		n Reduction in Tilled			isible on Aerial Imagery (C9)
	Visible on Aerial Imagery (Surface (C7)	()	Shallow Aqu		,
Water-Stair	ned Leaves (B9)	. ,	plain in Remarks)		X FAC-Neutral	. ,	
Field Observati	ions:						
Surface Water I	Present? Yes	No X	Depth (inches):				
Water Table Pro			Depth (inches):	>12"	Wetland Hv	drology Present?	
Saturation Pres			Depth (inches):	>12"			lo X
(includes capilla						· · · ·	
Describe Recor	ded Data (stream gauge,	monitoring well, aerial	photos, previous insp	ections), if availal	ble:		
Domestica							
Remarks: Soils slightly mo	ist throughout						

Project/Site: Percheron		City/County:	Boardman/ Morrow County	Sampling	Date: 3/31/2022
Applicant/Owner: Birch Infra	structure, LLC		. State	OR Sampl	ing Point: 17
Investigator(s): Sonya Tem	oleton, Margret Harburg, Stacey Ree	d, PWS Section,	Township, Range: Sec. 28, T.3N	N., R.24E., W.M.	
Landform (hillslope, terrace, etc.):	Terrace		Local relief (concave, convex,	, none): SI. Concave	Slope (%): <3%
Subregion (LRR): (B) Columb	ia/Snake River Plateau	Lat: 45.71623172N	Long: -120.077528	335W Dat	um: NAD83
Soil Map Unit Name:	Koehler loamy fine sand (Unit 2	26B) , 2-5% slopes; Non-	hydric	NWI classification:	None
Are climatic / hydrologic condit	ions on the site typical for this ti	me of year?	Yes	No <u>X</u> (If no, ex	(plain in Remarks)
Are Vegetation	,Soil , or Hydrolo	gysignificantly d	sturbed? Are "Normal Circur	mstances" present?	Yes X No
Are Vegetation	,Soil, or Hydrolo	gynaturally prob	lematic? (If needed, explain	any answers in Remar	ks.)
SUMMARY OF FIND	INGS – Attach site map	showing sampling	g point locations, transe	ects, important fe	atures, etc.
Hydrophytic Vegetation Prese	nt? Yes X	No			
Hydric Soil Present?	Yes	No X	Is the Sampled Area		
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes No	<u>X</u>
Precipitation prior to fieldwork:	According to the AgACIS Bo inches during the two weeks		0.00 inches of precipitation wa rch are wetter than normal.	as received on the day o	of fieldwork and 0.05
Remarks:					

Tree Stratum (Plot size: _ 30' r _)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species
(<u> </u>	78 COVEL	Species?	Status	
1				That Are OBL, FACW, or FAC:(A)
3.				
· · · · · · · · · · · · · · · · · · ·				Total Number of Dominant
4				Species Across All Strata: <u>1</u> (B)
Sapling/Shrub Stratum (Plot size:10' r		Total Cover		Percent of Dominant Species
1.)			That Are OBL, FACW, or FAC: 100% (A/B)
2.				
3.				Prevalence Index worksheet: Total % Cover of: Multiply by:
				OBL species 90 x 1 = 90
5.				FACW species <u>7</u> x 2 = <u>14</u>
5	0% = 1	Total Cover		FAC species $0 \times 3 = 0$
Herb Stratum (Plot size: ^{5' r})	070			FACU species $0 \times 4 = 0$
1. Schoenoplectus americanus	90%	Yes	OBL	UPL species 3 x 5 = 15
2. Euthamia occidentalis	7%	No	FACW	Column Totals: 100 (A) 119 (B)
3. Onopordum acanthium	3%	No	NOL	Prevalence Index = B/A = 1.19
4.				Hydrophytic Vegetation Indicators:
5				X Dominance Test is >50%
6.				X Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				
11				¹ Indicators of hydric soil and wetland hydrology must
101	100% = 1	Total Cover		be present.
Woody Vine Stratum (Plot size:10' r)			
<u>1.</u> 2.				Hydrophytic
L	0% = 7	Total Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum0%		of Biotic Crust		Present?
Remarks:				

SOIL			Sampling Point:	17
Profile Description: (Describe to the depth n	eeded to document the indicator or confirm	n the absence of indicators)	
Depth Matrix	Redox Features	8		
(inches) Color (moist) %	Color (moist)%Typ	be ¹ Loc ²	³ Texture	Remarks
0-17 10YR 4/3 100			S _	
¹ Type: C=Concentration, D=Depletion, RM=Rec	luced Matrix CS=Covered or Coated Sand Gra	ains. ² Location: PL=Po	e Lining, M=Matrix.	
³ Texture: S = sand; Si = silt; C = clay; L = loam (or loamy. Texture Modifier: co = coarse; f = fin	e; vf = very fine; + = heavy (n	ore clay); - = light (less cl	ay)
Hydric Soil Indicators: (Applicable to all LRR Histosol (A1)	s, unless otherwise noted.) Sandy Redox (S5)		roblematic Hydric Soils A9) (LRR C)	³ .
Histic Epipedon (A2)	Stripped Matrix (S6)		A10) (LRR B)	
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Ve	, , , ,	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Material (TF2)	
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Expl	in in Remarks)	
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)			
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	³ Indicators of hy	drophytic vegetation and	
Thick Dark Surface (A12)	Redox Depressions (F8)	wetland hydro	ogy must be present,	
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	unless disturb	ed or problematic.	
Sandy Gleyed Matrix (S4)				
Restrictive Layer (if present):				
Туре:				
Depth (inches):		Hydric Soil Present?	Yes	lo X
Remarks:				
Vetland Hydrology Indicators:	eck all that apply)	Secondary Indic	ators (2 or more required)	
Vetland Hydrology Indicators:	neck all that apply) Salt Crust (B11)		ators (2 or more required) s (B1) (Riverine)	
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; ch		Water Mark	· · · · · ·	
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1)	Salt Crust (B11)	Water Mark Sediment D	s (B1) (Riverine)	
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Biotic Crust (B12)	Water Mark Sediment D Drift Deposi	s (B1) (Riverine) eposits (B2) (Riverine)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Water Mark Sediment D Drift Deposi	s (B1) (Riverine) eposits (B2) (Riverine) es (B3) (Riverine)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Water Mark Sediment D Drift Deposi	s (B1) (Riverine) eposits (B2) (Riverine) is (B3) (Riverine) tterns (B10) Water Table (C2)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	 Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu Saturation \ 	s (B1) (Riverine) eposits (B2) (Riverine) s (B3) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (_
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7)	 Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu Saturation N Shallow Aquitical 	s (B1) (Riverine) eposits (B2) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3)	_
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	 Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu Saturation \ 	s (B1) (Riverine) eposits (B2) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3)	_
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7)	 Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu Saturation N Shallow Aquitical 	s (B1) (Riverine) eposits (B2) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3)	_
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch 	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7)	 Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu Saturation N Shallow Aquitical 	s (B1) (Riverine) eposits (B2) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3)	_
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Cr Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches):	Water Mark Sediment D Drift Deposi Drainage Pa Ots (C3) Dry-Season Crayfish Bu Saturation \ Shallow Aqu X FAC-Neutra	s (B1) (Riverine) eposits (B2) (Riverine) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3)	_
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Thin Muck Surface (C7) Other (Explain in Remarks) Other (Explain in Remarks)	Water Mark Sediment D Drift Deposi Drainage Pa Ots (C3) Dry-Season Crayfish Bu Saturation \ Shallow Aqu X FAC-Neutra	s (B1) (Riverine) eposits (B2) (Riverine) is (B3) (Riverine) itterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3) Test (D5) drology Present?	_
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Advantscolubrates (D1) Advantscolubrates (D1) Advantscolubrates (D2) Advantscolubrates (D2) Adv	Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu 6) Saturation \ Shallow Aqu X FAC-Neutra	s (B1) (Riverine) eposits (B2) (Riverine) is (B3) (Riverine) itterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3) Test (D5) drology Present?	 C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Advantscolubrates (D1) Advantscolubrates (D1) Advantscolubrates (D2) Advantscolubrates (D2) Adv	Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu 6) Saturation \ Shallow Aqu X FAC-Neutra	s (B1) (Riverine) eposits (B2) (Riverine) is (B3) (Riverine) itterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3) Test (D5) drology Present?	 C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes Mater Table Present? Yes	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Advantscolubrates (D1) Advantscolubrates (D1) Advantscolubrates (D2) Advantscolubrates (D2) Adv	Water Mark Sediment D Drift Deposi Drainage Pa ots (C3) Dry-Season Crayfish Bu 6) Saturation \ Shallow Aqu X FAC-Neutra	s (B1) (Riverine) eposits (B2) (Riverine) is (B3) (Riverine) itterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (itard (D3) Test (D5) drology Present?	 C9)

Project/Site: Percher	ron		City/County:	Boardman/ Morrow County	Sampling Date: 3/31/202	22
Applicant/Owner: Birch	n Infrastructure, LLC			State	: OR Sampling Point:	18
Investigator(s): Sonya Templeton, Margret Harburg, Stacey Reed, PWS Section, Township, Range: Sec. 28, T.3N., R.24E., W.M.						
Landform (hillslope, terrace	e, etc.): Terrace			Local relief (concave, convex	, none): Concave Siope (%):	<3%
Subregion (LRR): (B) C	Columbia/Snake River Pla	ateau .	Lat: 45.706232	Long: -119.81689	2 Datum: NAD83	. ,
Soil Map Unit Name:	Sagehill fine sand	y loam hummocky	(Unit 55B) , 2-5% sl	opes; Non-hydric	_ NWI classification: Nor	ne
Are climatic / hydrologic	conditions on the site typ	ical for this time of	year?	Yes	_ NoX (If no, explain in Remar	ˈks)
Are Vegetation	,Soil	, or Hydrology	significantly di	sturbed? Are "Normal Circu	mstances" present? Yes X	No
Are Vegetation	,Soil	, or Hydrology	naturally probl	ematic? (If needed, explair	any answers in Remarks.)	
SUMMARY OF F	INDINGS – Attach	site map show	wing sampling	point locations, transe	cts, important features, etc.	
Hydrophytic Vegetation	Present?	Yes X	No			
Hydric Soil Present?		Yes	No X	Is the Sampled Area		
Wetland Hydrology Pres	sent?	Yes	No X	within a Wetland?	Yes No	
Precipitation prior to field	Ũ	•		0.00 inches of precipitation ware wetter than normal.	as received on the day of fieldwork and	0.05
Remarks:						

Plot located within Intermittent Water 1 and within low flow channel.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' r</u>)	% Cover	Species?	Status	Number of Dominant Species
 Elaeagnus angustifolia 2 	40%	Yes	FAC	That Are OBL, FACW, or FAC:3(A)
3.				Total Number of Dominant
4				Species Across All Strata: 4 (B)
	40% =	Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' r</u> _)				Percent of Dominant Species
1. Artemisia tridentata	10%	Yes	NOL	That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
2				Prevalence Index worksheet: Total % Cover of: Multiply by:
4.				OBL species 40 x 1 = 40
5.				FACW species $0 \times 2 = 0$
	10% =	Total Cover		FAC species 90 x 3 = 270
Herb Stratum (Plot size:5' r)				FACU species 5 x 4 = 20
1. Atriplex heterosperma	50%	Yes	FAC*	UPL species 11 x 5 = 55
2. Schoenoplectus americanus	40%	Yes	OBL	Column Totals: 146 (A) 385 (B)
3. Nepeta cataria	5%	No	FACU	Prevalence Index = $B/A = \frac{2.64}{2.64}$
4. Onopordum acanthium	1%	No	NOL	Hydrophytic Vegetation Indicators:
5.				X Dominance Test is >50%
6.				X Prevalence Index is ≤3.0 ¹
7.				Morphological Adaptations ¹ (Provide supporting
8.				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
ò				
				¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:10' r)		Total Cover		be present.
1				
2				Hydrophytic
		Total Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum4%	% Cover of	of Biotic Crust		Present?
Remarks: *Assumed FAC.				

SOIL							Sampling Point:	18		
Profile Descrip	otion: (Describe to th	ne depth nee	ded to document	the indicator or	confirm the a	bsence of indicators.)				
Depth	Matrix	(Redox	Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	³ Texture	Remarks		
0-18	10YR 4/3	100					LS			
¹ Type: C=Conce	entration, D=Depletio	n, RM=Reduc	ed Matrix CS=Cov	vered or Coated S	and Grains.	² Location: PL=Pore	e Lining, M=Matrix.			
³ Texture: S = sa	and; Si = silt; C = clay	; L = loam or l	oamy. Texture Mo	odifier: co = coars	e; f = fine; vf = <u>·</u>	very fine; + = heavy (mo	ore clay); - = light (less c	lay)		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :					
Histosol (A ² Histic Epipe		-	Sandy Redox (S5)			1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)				
	. ,	-	Stripped Matrix (S6)				Reduced Vertic (F18)			
Black Histic (A3) Hydrogen Sulfide (A4)			Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2)				Red Parent Material (TF2)			
_ · ·	ayers (A5) (LRR C)	-	Depleted Matrix (F3)			Other (Explain in Remarks)				
	(A9) (LRR D)	-	Redox Dark S	. ,						
Depleted Below Dark Surface (A11)			Depleted Dark Surface (F7)			³ Indicators of hyd	³ Indicators of hydrophytic vegetation and			
Thick Dark Surface (A12)			Redox Depressions (F8)			wetland hydrology must be present,				
Sandy Muc	ky Mineral (S1)	_	Vernal Pools (F9)			unless disturbed or problematic.				
Sandy Gley	ved Matrix (S4)	_								
Restrictive Lay	er (if present):									
Type:										
Depth (inches). 					Hydric Soil Present?	Yes	No X		
Remarks:) [,]				ſ	,				
Half inch duff lay	yer present.									
HYDROLOG										
•	logy Indicators:									
Primary Indicators (minimum of one required; check all that apply)				Secondary Indica	tors (2 or more required)				
Surface Water (A1)		Salt Crust (B11)			Water Marks	Water Marks (B1) (Riverine)				
High Water Table (A2)		Biotic Crust (B	312)		Sediment De	Sediment Deposits (B2) (Riverine)				
Saturation (A3)		Aquatic Invertebrates (B13)				Drift Deposits (B3) (Riverine)				
Water Marks (B1) (Nonriverine)		Hydrogen Sulf	()			Drainage Patterns (B10)				
Sediment Deposits (B2) (Nonriverine)				ospheres along L	o (Water Table (C2)			
Drift Deposits (B3) (Nonriverine)				educed Iron (C4)		Crayfish Burr				
Surface Soil Cracks (B6)				eduction in Tilled	Solls (C6)		Saturation Visible on Aerial Imagery (C9)			
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)			Thin Muck Surface (C7) Other (Explain in Remarks)				Shallow Aquitard (D3) FAC-Neutral Test (D5)			
	· · /	-		i in Remarks)			Test (D5)			
Field Observati										
Surface Water Present? Yes <u>No X</u> Depth (inches):										
Water Table Pro			No <u>X</u>	Depth (inches):		Wetland Hyd	trology Present?	· · · · · ·		
Saturation Pres (includes capilla	-		No <u>X</u>	Depth (inches):	>18"		Yes	No <u>X</u>		
Describe Recor	rded Data (stream gau	uge, monitorir	ng well, aerial phot	tos, previous insp	ections), if avai	lable:				
Remarks:										
Soils dry through	hout.									



Appendix F: Representative Site Photos





Photo A. View facing north of one of the animal trails during the October 14, 2021 site visit.



Photo C. View west of upland Plot 4 during the October 14, 2021 site visit.

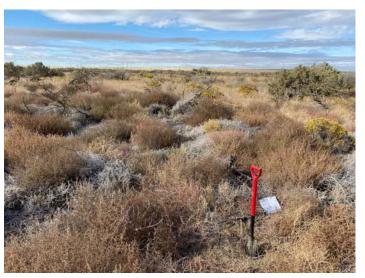


Photo B. View of Plot 3 facing west during the October 14, 2021 site visit.



Photo D. View facing south towards Plots 1 and 2 and of higher eleva on topographic area isola ng Wetland A with juniper tree during March 31, 2022 site visit.





Photo E. View of Plot 5 during the March 31, 2022 site visit.



Photo G. View east towards Plots 1, 2, and 5 showing undula ng topography and rolling shrub steppe plains during March 31, 2022 site visit.



Photo F. View south from Plot 5 showing no channel or defined bed and bank present during March 31, 2022 site visit.



Photo H. View facing south from upland Plot 8 and Wetland A boundary towards Plot 7 and Plot 6 in the center of Wetland A approximately 5 feet lower in eleva on than Plot 8. Photo taken during October 14, 2021 site visit.





Photo I. View east of upland Plot 10 with Wetland A boundary and Plot 9 in the background during October 14, 2021 site visit.



Photo K. View northwest towards Wetland A in low topographic depression from October 14, 2021 site visit.



Photo J. View east of Wetland A located within low topographic depression during October 14, 2021 site visit.



Photo L. View east of Plot 13 with Wetland A boundary toward upland Plot 14 loca on approximately 3 feet higher in elevaon than Plot 13. Photo taken March 2022 site visit.





Photo M. View of 4 culverts under Tower Road draining into Intermi ent Water 1 at March 31, 2022 site visit. No flow or surface water was present.



Photo O. View north of Intermi ent Water 1 from Plot 15 during March 31, 2022 site visit.



Photo N. View north of Intermi ent Water 1 near Plot 18 from October 14, 2021 site visit.



Photo P. View northeast towards Intermi ent Water 1 within Russian olive tree grove from October 14, 2021 site visit.





Photo Q. View facing south of an animal trail and shrubsteppe habitat during the October 14, 2021 site visit.



Photo S View facing southwest of the culvert on southern side of Tower Road from March 31, 2022 site visit.



Photo R. View of Plot 17 facing southwest from March 31, 2022 site visit.



Photo T. View facing north of shrub steppe habitat during March 31, 2022 site visit.



Appendix G: SDAM Forms

Appendix B: Streamflow Duration Field Assessment Form

Project # / Name Percheron					ASSESSOT Margret Harburg, Natural Resource Specialist			
Address Morrow County Assessor's Map Sec 28 3N 24E, Portion of Tax Lot 100, Boardman, Oregon Date 03/31/2022								
Wat	erway Na	ame Intermittent Water 1		Coordinates at	t Lat.	45.705323 -	Ν	
Reach Boundaries from 4 roadside culverts to Wetland					downstream e (ddd.mm.ss)	nd Long.	119.818314	W
Prec	Precipitation w/in 48 hours (cm) 0.00 Channel Width (m) 15 Disturbed Site / Difficult Situation (Describe in "Notes")							
	% of reach w/observed surface flow							
	Observed % of reach w/any flow (surface or hyporheic)							
		# of pools observed	0					
	Observed Wetland Plants (and indicator status): Observed Macroinvertebrates: Schoenoplectus americanus, Taxon OBL Phragmites australis, FACW Indicator							
č	; N/A							
-	1. Are aquatic macroinvertebrates present? Yes No 2. Are 6 or more individuals of the Order Ephemeroptera present? Yes No 3. Are perennial indicator taxa present? (refer to Table 1) Yes No 4. Are FACW, OBL, or SAV plants present? (Within ½ channel width) Yes No 5. What is the slope? (In percent measured for the valley, not the stream) %							
Are aquatic If Yes: Are 6 or present? (Indicator 3) (Indicator 2) If No: If Yes: What is the slope? (Indicator 4) (Indicator 1) If No: Are SAV, FACW, or OB, International present? (Indicator 4) If Yes: What is the slope? (Indicator 1) If No: Are SAV, FACW, or OB, International present? (Indicator 4) If No: If No: If No: Indicator 4) If No: If No: If No: <								
	Single Indicators:						ntermittent Perennial	

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)						
Difficult Situation:	Describe situation. For disturbed streams, note extent, type, and history of disturbance.					
Prolonged Abnormal Rainfall / Snowpack						
☐ Below Average	Below Average					
Above Average						
□ Natural or Anthropogenic Disturbance						
Other:						
Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary. Shallow broad floodplain with narrow low flow channel present approximately 2-3 feet wide. OHWM was defined in change in vegetation, change in slope, and a defined bed and bank. There was no evidence of recent surface water flow or ponding. The observed wetland plants had no new growth.						
Ancillary Information:						
Riparian Corridor						
Erosion and Deposition						
☐ Floodplain Connectivity						
	Observed Amphibians, Aquatic Snakes, and Fish:					
	HistoryLocationIndividualsTaxaStageObservedObserved					