

October 20, 2021

Michael C. Robinson

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VIA E-MAIL

Mr. Kenneth C. Onyima, A.I.C.P. Senior City Planner City of Gresham Planning Department Gresham City Hall 1333 NW Eastman Parkway Gresham OR 97030-3825

RE: City of Gresham File No. PZ20126000353, Veranda Subdivision(the "Application"); Applicant's Response to your July 22, 2021 Email Containing Four Questions

Dear Mr. Onyima:

This office represents Leeper Development, LLC ("Leeper"). This letter answers the four questions that you asked in your July 22, 2021 email to Mr. Leeper.

The answers to your questions are based on evidence contained in the September 22, 2021 "Wetland Determination Report" (the "Report") prepared by Mr. Jason Smith of Castle-Rose Environmental. The Report is attached as **Exhibit 1** to this letter. The proposed future street plan is attached as **Exhibit 2** to this letter.

The City can find that the Report demonstrates that the presence of a small wetland on the Property will not affect the proposed tentative subdivision map. The future street plan for the adjacent property to the east cannot be subject to a feasibility analysis because that standard is not clear and objective but regardless of the presence of a waterway or undelineated wetlands on the adjacent property to the east, the Application must show streets connecting to that property. Based on the evidence in this letter, the City can impose clear and objective conditions of approval regarding compliance with the Report and that open-bottom culverts shall be used for waterway crossings by the future street plan, as required by ORS 197.307(4), and that the grading plan shown in *Exhibit 2* shall be used for the location and construction of the future street plan.

1. <u>Question 1</u>: "Natural Resources believes there are more wetlands on the site than you are showing that could significantly impact the feasibility of the layout."

Answer: The site referred to in your question is the subdivision property (the "Property"). The Applicant has collected more data on the presence or lack of presence of

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wetlands on the Property since the prior wetland delineation. The Applicant has prepared a new wetland delineation for the Property consistent with state and federal requirements because the prior delineation was not prepared in accordance with these requirements. The new delineation has determined that there is less than .05 acres of wetlands on the Property. This small amount of wetlands is not required to be avoided and can be mitigated.

The new delineation demonstrates that the proposed tentative subdivision map is feasible to be constructed because wetlands will have no affect on the proposed subdivision.

A clear and objective condition as required by ORS 197.307(4) for this Application is possible and can simply say that the proposed tentative subdivision shall comply with the Report's recommendations.

2. Question 2: "The streams and potential wetlands on the adjacent property to the east could make the future street plan impractical to build."

Answer: Relevant provisions of the Gresham Development Code (the "GDC") require the Applicant to propose a tentative subdivision map that provides connectivity to adjacent properties. To the extent the adjacent property to the east contains a waterway (a tributary of Kelley Creek) or wetlands (which, as your question acknowledges, is presently unknown), they will have no affect on the approval of this Application. In fact, the adjacent property to the east may never be developed. The future street plan is not a development proposal and to the extent it is relevant to this Application, analysis of the future street plan is based on approval criteria which are neither clear nor objective as required by ORS 227.173(2) and 197.307(4). Therefore, the future street plan may not be a basis for a decision on this application.

Alternatively, *Exhibit 2*, prepared by All County Surveying, shows that the road grading for the proposed future loop street is feasible and that open-bottomed culverts can be installed to ensure that no waterways are impacted during the construction of the streets.

3. Question 3: "The proposed loop street to the east doesn't seem feasible. The grade of the loop isn't shown and the waterway crossing is on the property but not addressed in the narrative."

Answer: The Property does not contain a waterway (Report, PDF page 29). Feasibility is not a clear and objective standard as required by ORS 197.307(4) because it requires a discretionary analysis of facts and, even if that were not the case, the facts are not capable of being ascertained with this Application because the Applicant has not delineated the wetlands on the adjacent property to the east.

Alternatively, the same reason as described in the answer to Question 3, above, applies here.

4. Question 4: "Crossing of the waterway will likely require state permits. Some indication that the crossings are permissible is needed to assure the future street is feasible."

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Answer: Feasibility is not a clear and objective standard and may not be applied to the future street plan.

Alternatively, because open-bottom culverts can be used for the stream crossings so that the waterway would not be impacted during construction, state permits for crossing the waterway would not be needed.

I hope these answers are helpful to you. Jim's team would be happy to meet with you to discuss your questions and our answers.

Please place this letter in the official Planning Department file for this application.

Very truly yours,

Michael C. Robinson

Mutual C Relv

MCR:jmhi Enclosures

cc:

Mr. Jim Wheeler (via email) (w/enclosures)

Mr. Jim Leeper (via email) (w/enclosures)

Mr. Ray Moore (via email) (w/enclosures)

Mr. Tracy Brown (via email) (w/enclosures)

Mr. Jason Smith (via email) (w/enclosures)

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Castle-Rose Environmental

849 Woodpecker Dr Kelso, WA 98626 360.270.8497

Wetland Determination

Prop ID:

R340789

Site Address:

7928 SE 190TH DR

Site City/Zip:

GRESHAM, OR 97080

September 22, 2021

Prepared For:

Jim Leeper

A) Landscape Setting

The subject parcel site address is 7928 or 8000 SE 190th Drive, Gresham OR 97080. The Multnomah County Parcel Number is R340789. Land use in the vicinity south of Kelley Creek is single-family residential and agricultural.

Parcel information [GreshamView GIS]

State ID:

1S3E20D -01200

RNO:

R993200440

Prop ID:

R340789

Site Address:

7928 SE 190TH DR

Site City/Zip:

GRESHAM, OR 97080

Legal:

SECTION 20 1S 3E, TL 1200 38.90 ACRES, FARM DISQUAL, 2009-2013, 37.90 ACRES,

Zoning:

LDR-PV

Acres:

40.17

Building SqFt:

bulluling 541 t.

828

Landuse:

SFR [other databases documented as Agricultural]

Basin:

Willamette

Watershed:

Johnson Creek

Sub Basin:

Lower Willamette

Sub Watershed: Upper Johnson Creek

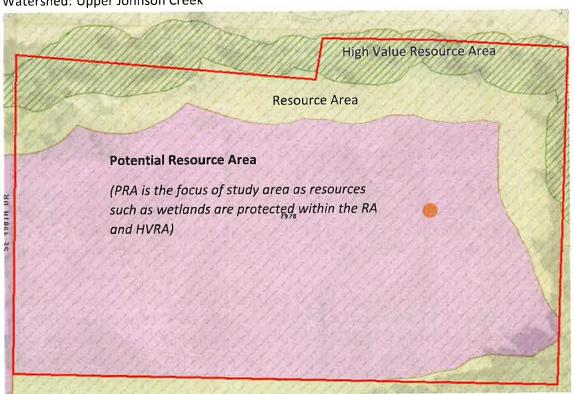


Figure 1: 7928 SE 190th GreshamView Map



The property generally slopes up towards the southeast, with peak elevation of 540' down to approximately 380' along SE 190^{th} Drive. The slope gradient increases significantly towards the east and southeast (from ~4% to ~15%).

The study area is approximately 30 acres.

B) Site Alterations

Historical Topographic Maps show SE 190th Street adjacent to the property as a dirt road as early as 1911. In 1914, USGS Topographic Maps reflect the current open areas vs forested areas – and is the first documented use of the site as farmland. The entire study area and adjacent riparian areas have been significantly affected by grazing. Disturbance of soil by cattle is persistent.

Historical aerial imagery indicates irrigation within the study area.

At some point in the agricultural development of the property, drain tiles were installed. Some drain tiles were repaired in 2018. All drainage on the site is artificial. Historical imagery analysis reveals modified drainages in the northeast area of the parcel directing runoff north towards Kelley Creek. In the west areas, drainages direct runoff toward SE 190th Drive, where drainages converge at a point adjacent to the roadway.

A drainage ditch on the west property boundary was excavated in conjunction with a power pole replacement following a car accident sometime in 2017 (estimated from aerial imagery with first indication of drainage ditch in 2018).

C) Precipitation Data and Analysis

CRE performed pothole sampling on July 11, 2020 and August 4, 2021 and vegetation observation on January 12, 2021 (per Difficult Wetland Procedures). Previous field investigations with data used in this report were performed April 24, 2018 and March 26, 2019 by others. Precipitation data is evaluated for these dates.

No AgACIS or NOAA station relevant to this site has the necessary data collection years to establish WETS "normality". Previous field investigations relied on the Natural Resources Conservation Service (NRCS) Agricultural Applied Climate Information System (AgACIS) for the Portland-Troutdale Airport station in Troutdale, Oregon. The elevation for this WETS station is 29' at 6.5 miles distance from the study area. The referenced WETS interval is 1981-2010. However, that interval lacks 17 years of precipitation data (no precipitation data from 1981 through the first half of 1998). In addition, the elevation, distance and physical setting render the Portland-Troutdale Airport station irrelevant to the project site.

Two AgACIS stations – Gresham 2 SW and Portland 9.8 ESE are located within 1.2 miles of the project site. However, Gresham 2 SW (1.0 miles) has only seven complete years of data (2012 – 2018). Portland 9.8 ESE (1.2 miles) has six years of data (2015 to 2020) but has no complete data for an entire calendar or water year. A third station - Happy Valley 1.7 ESE in Clackamas County is 2.8 miles southwest of the project site at elevation 593 feet. The Happy Valley station has data integrity from 2012 – 2020. Overlap years with Gresham 2 SW are 2015-2018 – and annual precipitation varied by less than 2/10ths of 1 inch for those four years. To calculate the best available data, Happy Valley data from 2019 and



2020 was added to the Gresham 2 SW measurements. The average for years 2012-2020 is substituted for WETS "normality".

Gresham 2 SW is at elevation 450'; Portland 9.8 ESE is at elevation 393'.

GRESHAM 2 SW + Happy Valley 1.7 ESE	Precipitation Month to	Precipitation	**Water Year	Normal Water	% of Normal Water Year
Date of Field	Date	3 Months	to Date	Year to Date	to
Visit	(average)	to Date (avg)	(inches)	(inches)	Date
		14.16			5.
24-Apr-18	5.6 (3.25)	(17.57)	39.6	40.1	99%
26-Mar-19	2.23 (5.02)	16.6 (19.0)	29.1	35.8	81%
11-JUL-20	0.05 (0.15)	10.06 (9.19)	46.04	46.1	99.8%

^{*}Zero precipitation all site visit dates

D) Methods

Dates of Field Investigations

- [Prior] April 24, 2018
- [Prior] March 26, 2019
- July 11, 2020
- January 12, 2021
- May 15, 2021
- May 19, 2021 (DSL site visit)
- August 4, 2021

Site-specific Methods

The study area is a farmed site and requires evaluation using Difficult Wetland Situations from the Corps' Regional Supplement to the [1987] US Army Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Western Supplement).

Specifically, under OAR 141-090-0035(10)(a):

Wetland determination and delineation on <u>farmed sites</u> shall follow procedures outlined in the Difficult Wetland Situations Chapter of the appropriate regional supplement.

As an agricultural property, OAR 141-090-0035(10)(a) applies to any wetland determination for this site. The Western Supplement Chapter 5: Difficult Wetland Situations in the Western Mountains, Valleys, and Coast Region is organized in the following sections:

- Problematic Vegetation
- Problematic Hydric Soils
- Wetlands that Periodically Lack Indicators of Wetland Hydrology
- Wetland/Non-Wetland Mosaics



^{**}Water Year = October 1 through September 30

Of the four Difficult Wetland Situations, three (bold font) apply to this study area.

Problematic Hydrophytic Vegetation

The Difficult Wetlands Situations guidance prescribes two methods for evaluating Problematic Hydrophytic Vegetation:

- 1) Specific Problematic Vegetation Situations
 - a. Temporal shifts in vegetation
 - i. Seasonal shifts in plant communities
 - ii. Extended drought conditions
 - b. Sparse and patchy vegetation
 - c. Riparian areas
 - d. Areas affected by grazing
 - e. Managed plant communities
 - f. Aggressive invasive plants
 - g. Areas affected by fires, floods and other natural disturbances
 - h. Vigor and stress responses to wetland conditions
- 2) General Approaches to Problematic Hydrophytic Vegetation Situations
 - a. Direct hydrologic observations
 - b. Reference sites
 - c. Technical literature

The applicable situations are highlighted in **bold** and discussed in detail below.

- 1) Specific Problematic Vegetation Situations for:
 - a. Temporal/Seasonal shifts in plant communities

Plant communities were observed in January (2021), March (2019), April (2018), May (2021), July (2020; 2021), August (2021) and September (2021). Within the study area overall, no significant changes occurred in plant communities as the growing season progressed. Plant dominance did not change during the season, although non-dominant hydrophytic vegetation in scattered areas did exhibit distressed (or dead) characteristics.

Although plants observed in January were either dormant or dead, observation during the non-growing season assists in distinguishing areas of plant dominance. In January 2021, the plant communities between upland and wetland were clearly distinguished (Appendix C – Site Photos).

b. Managed plant communities

The site is planted with pasture grasses and managed for agricultural purposes.

The following approaches are recommended if the natural vegetation has been altered through management to such an extent that a hydrophytic vegetation determination may be unreliable:

Compare vegetation to a reference site



A reference site is not available. East of the study area is forested and steep. South of the study area is a tree farm. West of the study area is residential and pasture. North of the study area is a riparian corridor and residential subdivision.

Leave portion of site unmanaged for one season

Vegetation for the entire study area was unmanaged in 2020 due to the COVID-19 pandemic. Holcus lanatus (common velvet grass) has emerged as the dominant grass species throughout the upland areas and is prevalent within the delineated wetland. Within the wetland, Facultative Wet (FACW) species Juncus effusus (common rush) and Tlepwwwwyrhmregie@reed canary grass) are dominant, with several Facultative (FAC) herbaceous species (e.g., Canada thistle; bird's foot trelfoil; curly dock, etc.) and one Obligate (OBL) species (Veronica americana; American speedwell). A non-growing season photo (January 2021) illustrates the dominance of Juncus effusus, Phalaris arundinacea and Holcus lanatus within the wetland perimeter. Holcus lanatus has a minimum rooting depth of four inches — which reflects the seasonal nature of the wetland and the emergence of an anaerobic plant species in large areas of the wetland. The OBL American speedwell is concentrated in the lowest point of the wetland at the head of the 2017 drainage ditch.



Upland, some FAC species are dominant in patches (e.g., *Ranunuclus repens* (creeping buttercup); *Rubus armeniacus* (Himalayan blackberry); *Cirsium arvense* (creeping thistle)). However, these patches of FAC species dominance do not correlate with saturated or inundated soils – but are reflective of invasive species patterns.



Within the study area, the wetland represents the only area of dominance for herbaceous FAC and FACW species and the only occurrence for any OBL species.

Based on historical aerial imagery, the wetland site appears to be undisturbed by agricultural activities in most recent years, except for grazing. Haying activities avoided the wetland area.

c. Aggressive Invasive Species

Invasive species *Rubus armeniacus* (Himalayan blackberry) and *Anthoxanthum odoratum* (sweet vernal grass) are present. Overall, Himalayan blackberry is dominant in isolated patches.

d. Areas affected by fires, floods and other natural disturbances

Not applicable to this site.

e. Vigor and stress responses to wetland conditions

Not observed at this site.

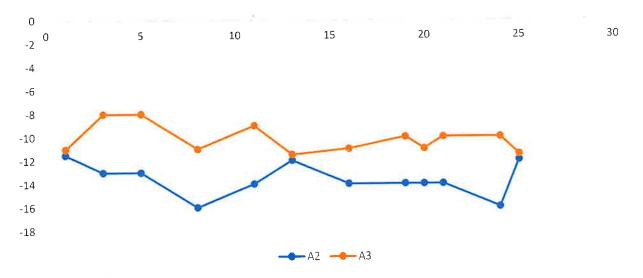
- 2) General Approaches to Problematic Hydrophytic Vegetation Situations
 - a. Direct hydrologic observations
 - i. Verify that the plant community occurs in an area subject to prolonged inundation or soil saturation during the growing season:

No prolonged inundation or saturation was observed for upland areas. Although saturation and some inundation within -12 inches of the surface were observed in March and April months, subsequent observations in May showed no indication of prolonged inundation or saturation in areas outside of the mapped wetland. The dominant pasture grass plant communities in the upland areas have no tolerance for anaerobic soil conditions.

For April 2018 samples collected within the lowest topographic area, we have the following positive A2 and A3 indicators, relative to the -12-inch indicator standard:



Chart 1: Depth of A2 (High Water Table) and A3 (Saturation): inches below surface



Each of these sampling points has a matched pair, with A2 and A3 observed in only one of those sample points (-16" for A2; -15" for A3). Sample points were separated by an average of 4 meters, but all matched sample points were at the same elevation. All sample points reflect the same plant community. Eight additional sample points in March 2019 exhibited similar characteristic: marginal A3 indicators (-11 inches) with no other primary or secondary hydrology indicators and a lack of hydrology in matched sampling points only a few feet away at the same elevation. Plant communities show no difference between areas with no observed hydrology and those areas with saturation within 12 inches of the surface.

In July 2020, two out of 18 sample points exhibited the A3 indicator – again marginal at close to 12 inches below ground surface. However, the July 2020 plant community associated with these two sampling points was dominated by FACW plants – a condition not observed anywhere else in the study area.

In January 2021, the A1 hydrology indicator was observed in the mapped wetland. In July 2021, saturation (A3) was observed in two data points within the mapped wetland. In May 2021, July 2021, August 2021 and September 2021, no hydrology was observed anywhere on the site outside the mapped wetland.

The standard for this evaluation method is "prolonged inundation or soil saturation during the growing season" that contributes to a hydrophytic plant community. The dominant plant community within the study area is not hydrophytic and does not change over time, supporting a conclusion that prolonged inundation or soil saturation is not present during the growing season.

b. Reference sites



No reference site available for this study area.

c. Technical literature

i. Published and unpublished scientific literature may be used to support a decision to treat specific FACU species or species with no assigned indicator status (e.g., NI, NO, or unlisted) as hydrophytes or certain plant communities as hydrophytic. Preferably, this literature should discuss the species' natural distribution along the moisture gradient, its capabilities and adaptations for life in wetlands, wetland types in which it is typically found, or other wetland species with which it is commonly associated.

Outside of the plant community adjacent to SE 190th Drive, the plant community within the study area is dominated by planted pasture grasses. Using the USDA's PLANTS Characteristics database (et al), two of the dominant "FAC" plant species were identified within the literature as having zero tolerance for anaerobic soil conditions (*Alopecurus pratensis and Holcus lanatus*):

PLANTS contains an expanded data set of Conservation Plant Characteristics that are primarily used to support the VegSpec application, a web-based decision support system that helps land managers plan and design natural resource conservation plantings. PLANTS Characteristics contains about one hundred plant characteristics ranging from growth form and growth requirements to suitability for various uses.

Previous field investigations relied on the Dominance Test and listed indicator status to test for hydrophytic vegetation. This method is not appropriate for Difficult Wetlands Situations. Furthermore, the Corps cautions against the indiscriminate use of indicator status to identify hydrophytic plant communities:

...the concept of hydrophyte is integral to wetland determination and delineation, and, according to federal regulations [33 CFR 328.3(b)], a site must support "a prevalence of vegetation typically adapted for life in saturated soil conditions." It is important to note that the wetland indicator status (e.g., Obligate, Facultative Wetland, Facultative, Facultative Upland, Upland) is not well characterized for the majority of species and is often determined without reference to significant data. [US Army Corps of Engineers (Corps) technical publication Vegetation Sampling for Wetland Delineation (July 2010)]

When adjusted for anaerobic intolerance for *Alopecurus pratensis and Holcus lanatus*, the majority of data points within the study area fail the Rapid Test, Dominance Test, Prevalence Test and FAC Neutral test.

As referenced in the Western Regional Supplement, "the Corps Manual defines hydrophytic vegetation as the assemblage of macrophytes that occurs in areas where inundation or soil saturation is either permanent or of sufficient frequency and duration to influence plant occurrence."

The manual uses a plant-community approach to evaluate vegetation. Hydrophytic vegetation decisions are based on the assemblage of plant species growing on a site, rather than the presence or absence of indicator species.



Hydrophytic vegetation is present when the plant community is dominated by species that require or can tolerate prolonged inundation or soil saturation during the growing season.

The plant communities within the study area do not vary with season or topography. The plant community development exhibits no correlation to soil saturation or inundation outside the *Juncus effusus* and *Phalaris arundinacea*-dominated plant community that is present within the lowest study area elevation.

Growing Season

The growing season can be approximated as the period of time between the average date of the last killing frost in the spring to the average date of the first killing frost in the fall. This represents a temperature threshold of 28 degrees F or lower at a frequency of 5 years in 10
[https://www.nrcs.usda.gov/wps/portal/wcc/home/climateSupport/wetlandsClimateTables/growingSeasonDatesLength/]

NOAA data is not available for the site to calculate the growing season from weather station temperature measurements (using appropriate statistical methods). The NRCS soils data reports indicate frost-free period of 165 days to 210 days. A conservative estimate using this data is a growing season for the site between mid-March and mid-October. This is consistent with January 2021 vegetation observations — which showed dormant or dead vegetation throughout the study area.

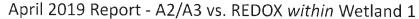
Problematic Hydric Soils

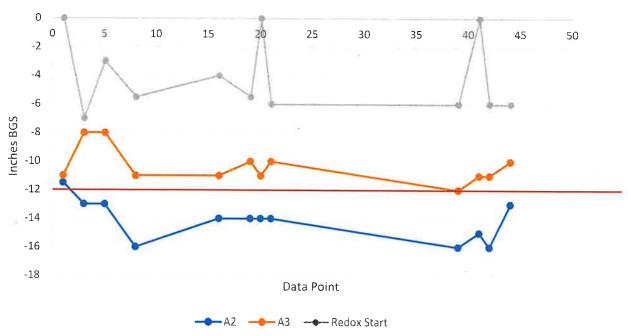
The study area is mapped by the NRCS with non-hydric soils:

- Cascade silt loam, 3 to 8 percent slopes
- Cascade silt loam, 8 to 15 percent slopes
- Cascade silt loam, 15 to 30 percent slopes
- Powell silt loam, 0 to 3 percent slopes

Previous field investigations documented soil color in the study area as predominantly 10 YR 3/2. Out of 45 data points, 37 "A Horizons" were documented with the 10 YR 3/2 color. The color remained consistent with depth, varying only slightly in hue and chroma. These soil colors fall within the range the F6 indicator (Redox Dark Surface). However, the documented redoximorphic features do no correlate to observed hydrology:

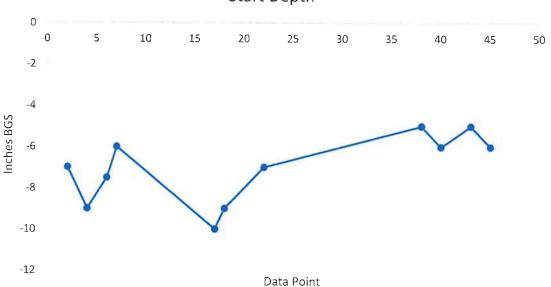






The observed A2 (Inundation) and A3 (Saturation) indicators do not correlate with the redoximorphic features. This is also true for the upland data points in documented in the April 2019 report and for the majority of the data points collected in 2020 and 2021.

April 2019 Report- "Wetland 1" Upland Data Points REDOX Start Depth



The Western Supplement Difficult Wetland Situations, Problematic Hydric Soils methodologies address two situations: 1) soils with faint or absent hydric soil indicators; 2) soils with relict hydric indicators.



The prescribed method requires correlation of soil characteristics to other indicators such as topography, hydrology patterns, etc. In the absence of a hydrophytic plant community and the lack of hydrology at soil depths relevant to redoximorphic features, the conclusion is that the study area soils outside of Wetland 1 are aerobic during the growing season. The observed redoximorphic features at shallow depths may be a function of temporary seasonal saturation during some years — but any inundation or saturation is not sufficiently prolonged to cause a hydrophytic plant community in at least five out of ten years.

Wetlands that Periodically Lack Indicators of Wetland Hydrology

The size of the wetland in the study area appears to fluctuate based on season and year. The area is flat. The wetland is drained with an artificial ditch. The wetland is dependent on precipitation funneled to the site via artificial drainage. The wetland boundary appears to vary, year by year, as a function of hydrology. The A3 (Saturation) indicator was observed in July 2020.

The Difficult Wetlands Situations guidance prescribes multiple methods for evaluating hydrology if both hydrophytic vegetation and hydric soils are present. For the identified Wetland 1, all three indicators were present in July 2020 for a very small area (<0.05 acre). Using methods prescribed for this Difficult Wetland Situation to evaluate hydrology using historical aerial photography, the size is adjusted to 0.12-acre.

Procedure:

1) Verify indicators of hydrophytic vegetation and hydric soil are present;

The wetland has indicators of hydrophytic vegetation and hydric soils.

2) Verify the area is in a landscape position likely to collect or concentrate water;

The wetland is located within the lowest topographic area within the study area.

- 3) Site visits during Dry Season (July 2020; August 2021)
 - a. Identify whether indirect hydrology indicators are present:
 - i. Water marks
 - ii. Drift deposits
 - iii. Surface cracks, etc.

No indirect hydrology indicators present. The A3 (Saturation) indicator was observed within the wetland boundaries.

- 4) Site visits with below-normal rainfall
 - a. Not applicable
- 5) Site visits during drought year
 - a. Not applicable
- 6) Years with unusually low winter snowpack
 - a. Not applicable
- 7) Reference Sites
 - a. Not applicable
- 8) Hydrology Tools



- a. Stream and Gauge Data
 - i. Not applicable
- b. Estimate runoff volumes
 - i. Not applicable
- c. Evaluate frequency of wetness signatures on aerial photography
 - This method is applied to this site
- d. Model water-table fluctuations in fields with parallel drainage systems using the DRAINMOD model
 - i. Not applicable
- e. Estimate the "scope and effect" of ditches or subsurface drain lines
 - i. Not applied
- f. Estimate the effectiveness of agricultural drainage systems using NRCS state drainage guides
 - i. Not applied
- g. Analyze data from groundwater monitoring wells
 - i. Not available

Evaluating Multiple Years of Aerial Photography

- Five or more years of growing-season photography
 - a. Six years (2012 2018) applied
- 2) Use NRCS "wetland mapping conventions"
 - a. Not specifically available for Oregon
 - General guidance is to evaluate for surface water, saturated soils, flooded or drowned-out crops, differences in vegetation patterns, unharvested crops, isolated areas not farmed with rest of the field, patches of greener vegetation during dry periods and other conditions per Part 513.30 of the USDA Natural Resource Conservation Service 1994)
 - i. For each photo, determine whether the rainfall in 2-3 months prior is "normal"
 - ii. Use only photos taken in normal rainfall years or an equal number of above normal or below normal
 - iii. Wetness signatures must be present in more than half the photos for wetland hydrology to be present
- 3) Normal rainfall years
 - a. The Gresham 2 SW station had rainfall within 30% of the station mean in 2012, 2013, 2014, 2015, 2016 and 2018. In 2017, precipitation was 48% higher than normal. All years were evaluated for aerial wetland indicators:





Google Earth Pro image dated 07/23/2012. Darker pattern is mix of hydrology and vegetation, as shown in imagery below dated less than one month later after haying. Technically, the image is not qualifying due to excessive precipitation 3-months prior (>40% difference from average). However, the 2012 imagery has two data points — similar to 2018 which has a -12% difference in 3-month prior precipitation and is qualifying. The wetness conditions patterns are very similar, reinforcing the wetland boundary.



The wetness pattern is definitive in the August 8, 2012 imagery. The closeups on the left show the wetness profile in relationship to the sampling points from 2020. No sampling performed in this area prior to 2020. The wetland area matches several wetness conditions, such as unharvested crop (no haying in the wetland); greener color in the dry season; different vegetation pattern. As noted for the July 2012 imagery, precipitation was 40.2% higher than average in the three months preceding the image date. The narrow green "spike" to the west of the wetland is not included in the boundary based on lack of hydrophytic plant community (and lack of observed hydrology in July 2020 compared to the wetland hydrology). The green spike does not appear consistently within the historical aerial imagery.



Although not a qualifying image under the Difficult Wetlands Situations protocol (non-growing season imagery) the wetland area remains consistent into the wet, non-growing season. Lines are livestock grazing patterns etched into the soil.



In July, 2013 – two drain tile lines converging on the wetland area are clearly visible. 3-month preceding precipitation +11% from normal. Imagery is 1-foot resolution vs. 6-inch resolution on imagery from other years.



In July, 2014 – differences in vegetation pattern slightly distinguishable as a wetness condition. 3-month prior precipitation -2%. Lines are grazing patterns and are persistent into recent years.



Early in the growing season, converging drain tiles and differences in vegetation pattern mark wetness conditions. 3-month prior precipitation -57%. 2-month prior precipitation was -10%. The difference in the 3-month and 2-month preceding precipitation illustrates the importance of recency on site hydrology.



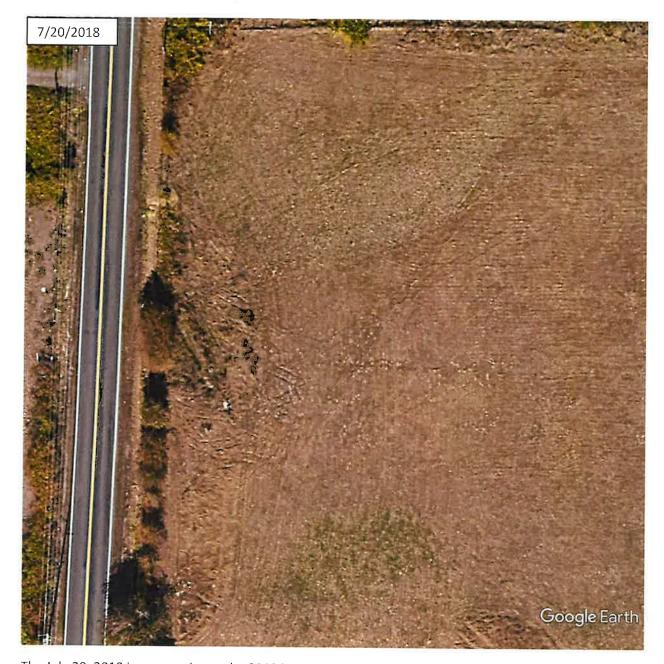
Less definitive in 2016, slight color variation and drain tile patterns are visible. Precipitation for three months prior -17%.



May 2017 imagery supports the difference in wetness conditions between wetland and adjacent upland. Vegetation patterns clearly distinguished. Converging drain tiles clearly visible. 2017 precipitation was 12% higher than average, but for the three months preceding – precipitation was 47% higher than normal.



July 16, 2018 image collected four days before haying. Wetness conditions distinguishable between uplands and wetland (color; vegetation pattern). The current ditch draining the wetland is now visible vs. the 2017 image.



The July 20, 2018 imagery mirrors the 2012 imagery pair. The wetland is unharvested; clear vegetation pattern difference. 3-month prior precipitation -12%.

The standard to be met is wetness indicators in 3 out of 5 years:

- 2012 YES
- 2013 YES
- 2014 YES
- 2015 YES
- 2016 YES (although not as definitive as other years)
- 2018 YES



The Wetland 1 area is the only area within the 36-acre study area to meet the standard for wetness conditions over these six image years.

Wetland/Non-Wetland Mosaics

Not identified as a site characteristic

Data Point Summary

45 data points were collected by Schotts & Associates in 2018 and 2019. Data from those points were used in this delineation, with differing conclusions based on Difficult Wetland Procedures.

Eighteen data points were collected in July 2020 by Castle-Rose Environmental. An additional sixteen data points were collected on August 4, 2021.

E) Description of All Wetlands and Other Non-Wetland Waters

Wetland 1

Within the study area, one depressional wetland was identified adjacent to SE 190th Drive. Wetland 1 is approximately 5,250 s.f. (0.12-acre). The Cowardin classification is Palustrine Emergent Seasonally Flooded/Saturated Partly Drained/Ditched (PEMEd). The Partly Drained/Ditch component is due to a drainage ditch that was installed to facilitate an emergency power pole replacement following a winter-time car accident. The ditch was installed sometime between 2017 and 2018.

The hydrogeomorphic (HGM) class is "depressional". 3DEM data (The National Map) indicates a slight depression in the area of the wetland. Similarly, the project Existing Conditions survey (Appendices) with 1-foot contours shows the wetland within the lowest elevation on the parcel.

Vegetation

Dominant vegetation includes *Juncus effuses* (common rush), patches of *Phalaris arundinacea* (reed canary grass) pasture grass (Colonial Bentgrass: *Agrostis capillaris*) and *Ranunculus repens* (creeping buttercup). Non-dominant species included *Rumex crispus* (curly dock), *Rubus armeniacus* (Himalayan blackberry) and *Acmispon parviflorus* (American speedwell). Dominant FACW plants (common rush and reed canary grass) distinguish the wetland plant community from adjacent upland plant communities. The wetland is also has the only occurrence of an OBLIGATE species in the entire 36-acre study area (American speedwell).

Adjacent upland vegetation included the pasture grasses *Agrostis capillaris* (Colonial bentgrass), *Alopecurus pratensis* (meadow foxtail) and common velvetgrass, Cogswell's hawthorn, small bird's foot trelfoil, stickywilly, various thistles, Himalayan blackberry, common rush (FACW) among others. The greatest species diversity and density occurs in the margins between the mowed agricultural area and the east roadside ditch at SE 190th (west boundary of the wetland).

Soil

The soil in the wetland is hydric. Soil color is matrix 4 and chroma 2, with greater than 10% prominent redox concentrations as pore linings. These features are greater than two inches thick in the upper six inches of the soil. This color profile meets the F3 Depleted Matrix indicator.



Hydrology

On July 11, 2020 – two sampling points within the wetland exhibited A3 hydrology indicators. No other indicators observed, consistent with previous site visits. The hydrology indicators were not present in adjacent uplands (paired data points).

Non-Wetland Waters

Kelley Creek – a perennial stream – is aligned with the north property boundary. However, this stream and the associated riparian zone is not included in the study area for this report. Kelley Creek and its riparian zone is documented with wetlands presence, and the entire riparian zone lies within the City of Gresham High Value Resource Area.

On the east side of SE 190th Drive, the roadside ditch is adjacent to Wetland 1. This ditch reach is ephemeral and has no defined channel or active flow in the areas adjacent to the wetland. The east ditch flows under SE 190th Drive via culvert, connecting to a roadside ditch on the west side of SE 190th Drive that ostensibly discharges to Kelley Creek. However, only one end of the west roadside culvert that may drain toward Kelley Creek can be identified from the road. Both roadside ditches are artificial, have channel widths of less than ten feet and contain no game fish.

F) Deviation from LWI or NWI

No portion of the study area contains wetlands or suspected wetlands documented in the Local Wetlands Inventory (LWI) or National Wetlands Inventory (NWI). Wetland 1 is a deviation from both the LWI and NWI.

G) Mapping Method

Data points and the wetland boundary were mapped using sub-meter Trimble GNSS technology by All County Surveyors:





Project Type: Subject Property: Project #:

The wetland boundary was identified using two methods: 1) vegetation as the surface indicator; 2) historical aerial photography. The two methods identified a surface area of approximately 5,250 s.f. and 5,227 s.f., respectively.

H) Additional Information

No Fish Presence

The roadside ditches at SE 190th Drive (either side of the road) have no fish presence.

Artificially Created Entirely from Upland

The roadside ditch adjacent to Wetland 1 was artificially created from uplands with the construction of SE 90^{th} Drive.

Wetland 1 was similarly created from uplands, based on historical aerial and topographic information. The area soils are mapped as non-hydric; the area was historically forested; the area was cleared for agricultural purposes; drain tiles were installed to facilitate agriculture; the wetland occurs at the convergence of several drain tiles easily visible on aerial imagery; the wetland occurs adjacent to a roadside ditch that is also created from uplands for the purpose of stormwater conveyance.

Prior Jurisdictional Determination

Castle-Rose Environmental with principal investigator Jason Smith was contracted in the summer of 2020 to evaluate jurisdictional wetland issues for the property. The initial question was whether the new Navigable Waters Protection Rule: Definition of "Waters of the United States" (33 CFR Part 328; 40 CFR Parts 110, 112, 116, 117, 120, 122, 230, 232, 300, 302, and 401) would have any impact on the Corps' jurisdictional determination for the subject property dated 4/6/2020.

The basis for the review was a wetland delineation completed by another consulting firm dated April 2019. However, during review of the delineation report, we discovered the report was not compliant with Oregon Administrative Rules (OAR) 141-090-0035 (1-17) or by reference, the 1987 US Army Corps of Engineers Wetland Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Western Supplement).

Specifically, under OAR 141-090-0035(10)(a):

Wetland determination and delineation on <u>farmed sites</u> shall follow procedures outlined in the Difficult Wetland Situations Chapter of the appropriate regional supplement.

As an agricultural property, OAR 141-090-0035(10)(a) applies to any wetland determination for this site. The Western Supplement Chapter 5: Difficult Wetland Situations in the Western Mountains, Valleys, and Coast Region is organized in the following sections:

- Problematic Hydrophytic Vegetation
- Problematic Hydric Soils
- Wetlands that Periodically Lack Indicators of Wetland Hydrology
- Wetland/Non-Wetland Mosaics



The April 2019 wetland delineation did not apply delineation protocols required by OAR 141-090-0035, and therefore cannot be relied upon for determining wetland presence on the parcel. The Oregon Department of State Lands (DSL) issued a concurrence letter (WD# 2019-0500 - January 23, 2020) and finding of jurisdiction based on the non-compliant wetland delineation. Under OAR Rule 141-090-0045: Duration, Expiration and Reissuance of Jurisdictional Determinations (JD), a JD may be revised by the DSL prior to the five-year expiration date if: (a) A field investigation or new information reveals that site conditions or the geographic extent of waters of this state are not consistent with the information in a report or permit application submitted to the Department; (b) Additional site information or data is provided voluntarily by an applicant or landowner to the Department.

Under OAR 141-090-0045(a), new information generated from the follow-up site investigation and wetland determination reveals that the geographic extent of waters of the state documented in the April 2019 wetland report do not match the vegetation and hydrology data included in the report.

Results and Conclusion

A 0.12-acre wetland (Wetland 1) does exist within the site study area. Data and analysis indicate this wetland was created artificially from uplands when SE 190th Drive was constructed (approximately 1914). Wetland 1 hydrology is created through converging drain tiles and the elevated road profile (SE 190th Drive).

Areas within the study area previously identified as wetlands lack the required hydrophytic plant community. The plant community on the site, outside of Wetland 1, is not a function of anaerobic soil conditions (prolonged saturated or inundated soils).

I) Disclaimer

This report documents the investigation, best professional judgment and conclusions of the investigator. It is correct and complete to the best of my knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.

Jason Smith
Principal Investigator



Appendix A Figures

7928 SE 190th - LOCATION MAP

USGS 2021 USGS

1,160 ft

1:9,028 580

290

350 m

Oregon Metro, Bureau of Land Management, State of Oregon, State of

87.5



Study Area

7928 SE 190th Drive, Gresham OR 97080 Parcel #: R340789



Gresham GIS

High Value Resource Area Resource Area

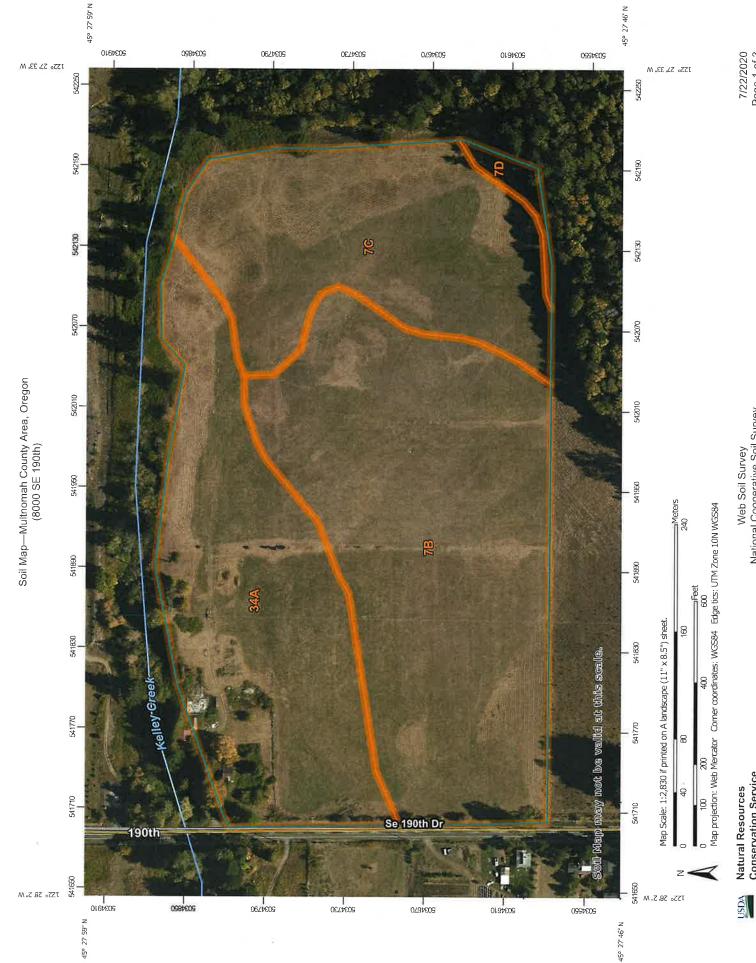
August 23, 2021

Potential Resource Area

Disclaimer. The City of Gresham Land Information has been gathered from a variety of sources. The information contained herein is subject to change at any time and without notice.







Natural Resources Conservation Service

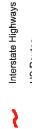
MAP LEGEND

Special Line Features Very Stony Spot Stony Spot Spoil Area Wet Spot Other W 8 40 Soil Map Unit Polygons Area of Interest (AOI) Soil Map Unit Points Soil Map Unit Lines Special Point Features Area of Interest (AOI) Blowout



Borrow Pit

Clay Spot

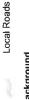


Closed Depression



Gravelly Spot

Gravel Pit



Major Roads **US Routes** Rails **Transportation** ŧ

Background

Aerial Photography

Marsh or swamp

Lava Flow

Landfill

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot Sandy Spot

scale.

Please rely on the bar scale on each map sheet for map

line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

misunderstanding of the detail of mapping and accuracy of soil Enlargement of maps beyond the scale of mapping can cause

Warning: Soil Map may not be valid at this scale.

The soil surveys that comprise your AOI were mapped at

1:20,000

MAP INFORMATION

Source of Map: Natural Resources Conservation Service measurements.

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator distance and area. A projection that preserves area, such as the projection, which preserves direction and shape but distorts Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Multnomah County Area, Oregon Survey Area Data: Version 18, Jun 11, 2020 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Oct 15, 2018—Oct

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shiffing of map unit boundaries may be evident.

Severely Eroded Spot

Slide or Slip Sodic Spot

Sinkhole

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7B	Cascade silt loam, 3 to 8 percent slopes	15.3	43.8%
7C	Cascade silt loam, 8 to 15 percent slopes	8.7	24.9%
7D	Cascade silt loam, 15 to 30 percent slopes	0.4	1.2%
34A	Powell silt loam, 0 to 3 percent slopes	10.5	30.1%
Totals for Area of Interest		34.9	100.0%



Appendix B Data Forms

Project/Site: _7928 SE 190 th Dr	City/County:	Gresham/Mult	nomah	Sampling Date: July 11, 2020
Applicant/Owner: Jim Leeper		State: OR	_	
Investigator(s): Jason Smith	Section, To	wnship, Range:	S25 T8S	R2W
Landform (hillslope, terrace, etc.): Terrace				
Subregion (LRR): A				
				WI classification: NA
Are climatic / hydrologic conditions on the site typi	cal for this time	of year? Yes	x No	(If no, explain in Remarks.)
Are Vegetation x , Soil x , or Hydrolog	y <u>x</u> signific	cantly disturbed		ormal Circumstances" present? Yes x No
Are Vegetation , Soil , or Hydrolog	y natura	lly problematic?	? (If needed, explain any answers in Remarks.)
	ceeses .			
SUMMARY OF FINDINGS – Attach sit Hydrophytic Vegetation Present? Yes		ing samplii	ng point i	ocations, transects, important features, etc.
Hydric Soil Present? Yes		Is the Sample	d Area with	in a Wetland? Yes No _x_
Wetland Hydrology Present? Yes				
Remarks: Pair data point with Wetland 1-A.				
VEGETATION – Use scientific names	of plants.			
	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2.				Total Number of Dominant
3.				Species Across All Strata:2 (B)
4.				Percent of Dominant Species That Are OBL, FACW, or FAC:50 (A/B)
				That Are OBE, I AOW, OI I AO(VVB)
	e 	= Total Cove	г	B. I.
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.				OBL species
3.				FACW species
4				FAC species
5.				FACU species
	0	= Total Cove	r	UPL species x 5 =
Herb Stratum (Plot size: 5)				Column Totals: (A) (B)
1. Holcus lanatus*	65	X		
2. Lotus corniculatus	30	X	FAC	Prevalence Index = B/A =
Schedonorus arundinaceus	55		FAC	Hydrophytic Vegetation Indicators:
4				
5.				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7.				3 - Prevalence Index is ≤3.0¹
8				4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9.				5 - Wetland Non-Vascular Plants ¹
10				x Problematic Hydrophytic Vegetation¹ (Explain)
11		=		. —
WALL CONTROL MAN TO A STATE OF THE STATE OF	100	= Total Cove	r	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)				Bo present, unless distarbed of presentation
18				
2,		T. / 10		Hydrophytic
		= Total Cove)r	Vegetation No.
% Bare Ground in Herb Stratum 0				Present? Yes No _x
	·			no alle alle alle alle alle alle alle all
Remarks: Holcus lanatus (common velvet grass)	has ZERO tole	rance for anaer	obic soil con Sarundinace	ditions and has a minimum root depth of only 4 inches – ous (tall/meadow fescue) are difficult to distinguish from
each other in the field - but both are identified as	low tolerance for	r anaerobic soi	I conditions.	The common velvetgrass/fescue past grass plant
community is dominant in the upland areas. In ac	cordance with	87 Corp Manua	l and Region	nal Supplement procedures, the pasture grass plant

Western Mountains, Valleys, and Coast - Version 2.0

community is identified as non-hydrophytic for this site.

SOIL							Sampling Point:	1-A-2 (Paired)
Profile Desc	ription: (Describe	to the depth	needed to docum	ent the inc	dicator or co	nfirm the al	sence of indicators.)	, , , ,
Depth	Matrix			Redox Fea			,	
_(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0.0	7 EVD E/2	0.5	S					
_0-8	7.5YR 5/3	_95					Silt loam	
\	;			-			-	
====								
								
						-	-	
-								
¹ Type: C=Co	oncentration, D=Dep	letion, RM=F	Reduced Matrix, CS=	Covered o	or Coated Sai	nd Grains.	² Location: PL=Pore Li	ning M=Matrix
								- mig, in matrix.
Hydric Soil	Indicators: (Applic	cable to all L	RRs, unless other	wise noted	d.)	India	cators for Problematic	Hydric Soils ³ ;
Histosol	(A1)		Sandy Redox (S5	:\				-
	oipedon (A2)	_	Stripped Matrix (S	,			2 cm Muck (A10)	0.
	istic (A3)	_					Red Parent Material (TF:	
	en Sulfide (A4)		Loamy Mucky Mir		except MLR		ery Shallow Dark Surfa	
		- (0.44) —	_ Loamy Gleyed Ma			— (Other (Explain in Remarl	(S)
	d Below Dark Surfac	e (A11)	_ Depleted Matrix (
	ark Surface (A12)	_	_ Redox Dark Surfa	ice (F6)			Indicators of hydrophytic	
	lucky Mineral (S1)		Depleted Dark Su				vetland hydrology must l	
Sandy G	Sleyed Matrix (S4)		Redox Depressio	ns (F8)		L	ınless disturbed or probl	ematic
_								
Restrictive La	yer (if present):							
Type:					Hydric Soi	I Present?	Yes	No x
Depth (inch	P6).				11,411.000	i i i cociit:	163	10 <u> </u>
				_	la			
Remarks:								
HYDROLOG	v							
	ology Indicators:							
Primary Indicate	ors (minimum of one	roquirod: ob	sook all that annied				Issue Issuestate (C	1 1
I Tilliary Indicat	ors (minimum or one	required, cr		L /D	10) (1		lary Indicators (2 or mor	
Curfoss M/s	A (AA)		Water-Stained				iter-Stained Leaves (B9)) (MLRA 1, 2,
Surface War			MLRA 1, 2, 44				, and 4B)	
High Water			Salt Crust (B1				ainage Patterns (B10)	
Saturation (Aquatic Inverte				/-Season Water Table (
Water Marks	s (B1)		Hydrogen Sulf			Sa	turation Visible on Aeria	Imagery (C9)
			Oxidized Rhize	ospheres a	long Living			
Sediment De			Roots (C3)			Ge	omorphic Position (D2)	
Drift Deposit	ts (B3)		Presence of R	educed Iro	n (C4)	Sh	allow Aquitard (D3)	
			Recent Iron Re	eduction in	Tilled			
Algal Mat or	Crust (B4)		Soils (C6)			FA	C-Neutral Test (D5)	
			Stunted or Stre	essed Plan	ts (D1)		` ,	
Iron Deposit	ts (B5)		(LRR A)		` '	Rai	ised Ant Mounds (D6) (L	-RR A)
Surface Soil	Cracks (B6)		Other (Explain	in Remark	(s)		st-Heave Hummocks (D	
Inundation V	/isible on Aerial Imag	gery (B7)			,		(2	.,
	getated Concave Su							
Field Observat	ions:							
Surface Water I		No v	Donth (inches)					
Water Table Pro			Depth (inches):	÷	— I			
		No _x	Depth (inches):		vvet	iand Hydroi	ogy Present? Yes	Nox
Saturation Pres		NI- N	C Down C L X					
(includes capilla		No _>	_ ' ' /					
Describe Record	ed Data (stream gau	ıge, monitoriı	ng well, aerial photo	s, previous	inspections)	, if available:	100	
Remarks:								
Admarks.								

Project/Site: 7928 SE 190 th Dr	City/County:	Gresham/Mult	tnomah	Sampling Date: July 11, 2020
Applicant/Owner: Jim Leeper				Point: 1-B-2
Investigator(s): Jason Smith	Section, T	ownship, Range	S25 T8S	R2W
Landform (hillslope, terrace, etc.): Terrace	Lo	cal relief (concav	/e, convex, r	none): Concave Slope (%): <1%
Subregion (LRR): A	Lat: 45.464	1883° Long:	-122.466	Datum: WGS84
Soil Map Unit Name: Powell silt Loam			N,	WI classification: NA
Are climatic / hydrologic conditions on the site type	oical for this tim	e of year? Yes	x No	(If no, explain in Remarks.)
Are Vegetation x . Soil x . or Hydrold	gy x signif	icantly disturbed	? Are "No	ormal Circumstances" present? Yes x No
Are Vegetation , Soil , or Hydrold				If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach si	te map sho	wing sampli	ng point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No x			
	No x	is the Sample	ed Area with	in a Wetland? Yes No _x_
Wetland Hydrology Present? Yes	140			
Remarks: Pair data point with Wetland 1-B.				
VEGETATION – Use scientific names	of plants			
VEGETATION - Use scientific flames	==-7.		1 1 1 1	Dominance Test worksheet:
Tree Stratum (Plot size:)	Absolute % Cover		Indicator Status	Number of Dominant Species
9-W		Openics.	Oldido	That Are OBL, FACW, or FAC:1(A)
1.				Total Number of Dominant
2.				Species Across All Strata: 2 (B)
3.				Percent of Dominant Species
4				That Are OBL, FACW, or FAC:50 (A/B)
	8=====	= Total Cove		
	-	= Total Cove	:(Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:
1.				OBL species
2				
3	-			FACW species
4	- Y=			FAC species
5	- 2	7.10		FACU species
		= Total Cove	er	UPL species x 5 =
Herb Stratum (Plot size: 5)				Column Totals: (A) (B)
1. Holcus lanatus*	-	X		Devialence Index = D/A =
2. Lotus corniculatus	30	X		Prevalence Index = B/A =
3. Rumex crispus	5		FAC	Hydrophytic Vegetation Indicators:
4. Juncus effusus	5		FAC	-
5. Schedonorus arundinaceus*	10		FAC*	1 - Rapid Test for Hydrophytic Vegetation
6	_			2 - Dominance Test is >50%
7. =				3 - Prevalence Index is ≤3.0¹
8				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9	_			5 - Wetland Non-Vascular Plants ¹
10	_			x Problematic Hydrophytic Vegetation¹ (Explain)
11				
	100	= Total Cove	er	¹Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1.				
2.				Hydrophytic
		= Total Cove	er	Vegetation
% Bare Ground in Herb Stratum 0				Present? Yes No _x
3				
Remarks: Holous lanatus (common velvet grass	a) has ZERO to	erance for anae	robic soil cor	nditions and has a minimum root depth of only 4 inches –
well above any seasonal saturation observed at	the site. Sched	donorus pratensi	s/arundinace	eus (tall/meadow fescue) are difficult to distinguish from

Remarks: Holcus lanatus (common velvet grass) has ZERO tolerance for anaerobic soil conditions and has a minimum root depth of only 4 inches well above any seasonal saturation observed at the site. Schedonorus pratensis/arundinaceus (tall/meadow fescue) are difficult to distinguish from each other in the field – but both are identified as low tolerance for anaerobic soil conditions. The common velvetgrass/fescue past grass plant community is dominant in the upland areas. In accordance with '87 Corp Manual and Regional Supplement procedures, the pasture grass plant community is identified as non-hydrophytic for this site.

SOIL							Sampling Point:	1-B-2 (Paired)
Profile Des	cription: (Describe	to the depti	h needed to docum	ent the ind	licator or cor	ifirm the ab	sence of indicators.)	
Depth	Matrix			Redox Feat				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	7.5YR 6/3	95					Silt Ioam	
	/.=====================================						Oilt Iodili	
				-	·			
		-	\{	-			-	
				-				
·								
¹ Type: C=C	oncentration, D=Dep	letion, RM=F	Reduced Matrix, CS	=Covered or	Coated San	d Grains.	² Location: PL=Pore Lini	ing. M=Matrix.
Hyaric Soil	Indicators: (Appli	cable to all L	_RRs, unless other	wise noted	.)	Indica	ators for Problematic H	lydric Soils³:
Histoso	l (A1)		Sandy Redox (S5	5)		2	cm Muck (A10)	
Histic E	pipedon (A2)		Stripped Matrix (S	S6)		Re	ed Parent Material (TF2)	
Black H	istic (A3)		Loamy Mucky Mi	neral (F1) (e	except MLRA		ery Shallow Dark Surface	
	en Sulfide (A4)		Loamy Gleyed M	atrix (F2)			ther (Explain in Remarks	
	d Below Dark Surfac	e (A11)	Depleted Matrix (′
	ark Surface (A12)		Redox Dark Surfa	ace (F6)		3lr	ndicators of hydrophytic	venetation and
	Mucky Mineral (S1)		Depleted Dark Su	urface (F7)		We	etland hydrology must be	present.
Sandy 0	Gleyed Matrix (S4)		Redox Depressio	ns (F8)			less disturbed or proble	
Restrictive La	yer (if present):							
Type:					Hydric Soil	Present?	Yes No	х
Depth (inch					-			
Remarks:								
HYDROLOG								
Wetland Hydr	ology Indicators:							
Primary Indicat	tors (minimum of one	required; ch				Seconda	ary Indicators (2 or more	required)
0			Water-Stained		9) (except	Wate	er-Stained Leaves (B9) (MLRA 1, 2,
Surface Wa			MLRA 1, 2, 4A				and 4B)	
High Water			Salt Crust (B1				nage Patterns (B10)	
Saturation (Aquatic Inverte				Season Water Table (C2	
Water Mark	S (DI)		Hydrogen Sulf			Satu	ıration Visible on Aerial I	magery (C9)
Sediment D	eposits (B2)		Oxidized Rhize	ospneres al	ong Living		11 D W (DO)	
Drift Deposi			Roots (C3)	المطالمة مطالمة	(04)		morphic Position (D2)	
Billi Deposi	ita (D0)		Presence of R Recent Iron Re			Snai	low Aquitard (D3)	
Algal Mat or	r Crust (B4)		Soils (C6)	eduction in	illea	EAC	Noutral Toot (DE)	
	Order (BA)		Stunted or Stre	essed Plant	e (D1)	FAC	-Neutral Test (D5)	
Iron Deposi	ts (B5)		(LRR A)	cosed i lant	3 (01)	Rais	ed Ant Mounds (D6) (LR	DD A\
	l Cracks (B6)		Other (Explain	in Remarks	;)		t-Heave Hummocks (D7	,
	√isible on Aerial Imag	zerv (B7)		·······································	-,		t ricave ridillillocks (Dr	,
Sparsely Ve	getated Concave Su	rface (B8)						
Field Observa	tions:							
Surface Water		No x	Depth (inches):					
Water Table Pr	esent? Yes	No x	Depth (inches):		Wetla	nd Hydrolo	gy Present? Yes	No x
Saturation Pres					-		3,	
(includes capilla			Depth (inches):					
Describe Record	ed Data (stream gau	ge, monitorii	ng well, aerial photo	s, previous	inspections),	if available:		
Remarks:								

Project/Site: 7928 SE 190 th Dr Ci	ty/County:	Gresham/Mul	tnomah	Sampling Date: August 4, 2021
Applicant/Owner: Jim Leeper		State: OR	Sampling	Point: 1.1
Investigator(s): Jason Smith	Section, To	ownship, Range	S25 T8S	R2W
Landform (hillslope, terrace, etc.): Terrace				
		672° Long:		
				VI classification: NA
Are climatic / hydrologic conditions on the site typica				(If no, explain in Remarks.)
Are Vegetation x , Soil x , or Hydrology				ormal Circumstances" present? Yes _x No
Are Vegetation, Soil, or Hydrology				If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map show	ving sampli	ng point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?	o <u>x</u>	Is the Sample	ed Area with	in a Wetland? Yes Nox
Remarks: Historically, no wetland features are mapp	ed for this st	tudy area. Stud	ly area is hist	orically forested with conversion to pasture in the early
1900's Drainage affected by drain tiles. Study area	a plant comm	nunity is typical t	for forage see	ed blends with some invasive species intestation. Study
area plant community is affected by grazing and hay	/ing. This da	ta point is re-ev	aluated from	the 2019 wettand defineation.
VEGETATION – Use scientific names o	f plants.			
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3,				Species Across All Strata:3 (B)
4.				Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)
		= Total Cove	er	
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.				OBL species
3::				FACW species
4.				FAC species
5.				FACU species
10		= Total Cove	er	UPL species x 5 =
Herb Stratum (Plot size: 5)				Column Totals: (A)(B)
1. Holcus lanatus*	50	X	FAC*	Column Totals (71)
2. Ranunculus repens	30	X	FAC	Prevalence Index = B/A =
3. Schedonorus pratensis/arundinaceus*	20	X	FACU	
4.				Hydrophytic Vegetation Indicators:
5.				1 - Rapid Test for Hydrophytic Vegetation
6.				2 - Dominance Test is >50%
7.				3 - Prevalence Index is ≤3.01
8.				4 - Morphological Adaptations ¹ (Provide supporting
9.				data in Remarks or on a separate sheet)
10.				5 - Wetland Non-Vascular Plants ¹
11.				x Problematic Hydrophytic Vegetation¹ (Explain)
	100	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	, 100			be present, unless disturbed or problematic.
12-0-0-11-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1				
1)			
2.	-	= Total Cov	er	Hydrophytic
9/ Para Cround in Horb Stratum 0			.	Vegetation Present? Yes No x
% Bare Ground in Herb Stratum 0	₹			
	7556			willians and has a minimum root don'th of only 4 inches
Remarks: Holcus lanatus (common velvet grass) h	as ZERO tole	erance for anae	iobic soll cor is/arundinace	ditions and has a minimum root depth of only 4 inches –

Remarks: Holcus lanatus (common velvet grass) has ZERO tolerance for anaerobic soil conditions and has a minimum root depth of only 4 inches—well above any seasonal saturation observed at the site. Schedonorus pratensis/arundinaceus (tall/meadow fescue) are difficult to distinguish from each other in the field—but both are identified as low tolerance for anaerobic soil conditions. The common velvetgrass/fescue past grass plant community is dominant in the upland areas. In accordance with '87 Corp Manual and Regional Supplement procedures, the pasture grass plant community is identified as non-hydrophytic for this site.

SOIL							Sampling Poi	nt: 1.1
Profile Des	cription: (Describe	to the dep	th needed to docum	nent the i	ndicator or c	onfirm the a	absence of indicator	s.)
Depth	Matrix			Redox Fe	eatures			•
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-6	10YR 4/2	_95					Silt loam	Distinct redox
6-8	10YR 4/2	90	10YR 5/3	_10		_PL		(
8-16	_10YR 4/3	90						
					-			·——
	•				8			:
					-			
				·	2			
¹Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, CS	=Covered	or Coated Sa	ınd Grains.	² Location; PL=Por	e Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	rwise not	ed.)	Ind	icators for Problema	tic Hydric Soils ³ :
Histoso			Sandy Redox (St		,		2 cm Muck (A10)	
Histic E	pipedon (A2)	_	Stripped Matrix (S6)			Red Parent Material (TF2)
	listic (A3)	_	Loamy Mucky Mi	ineral (F1)	(except MLR	RA 1)	Very Shallow Dark Si	urface (TF12)
	en Sulfide (A4) d Below Dark Surfac	- (Δ11)	Loamy Gleyed MDepleted Matrix (Other (Explain in Ren	narks)
	ark Surface (A12)	~ (AII) _	x Depleted Matrix (Redox Dark Surfa				3Indicators of budson	udio vogotetien and
Sandy N	Mucky Mineral (S1)	_	Depleted Dark St		')		³ Indicators of hydroph wetland hydrology mu	iytic vegetation and ist be present.
Sandy (Gleyed Matrix (S4)		Redox Depression	ons (F8)			unless disturbed or pr	oblematic
Restrictive La	yer (if present):							
Type:	iyer (ii present):				11-10	'' B 40	.,	
Depth (inch	nes):				Hydric So	il Present?	Yesx	_ No
Remarks:					d			
IYDROLOG	Y							
Wetland Hydr	ology Indicators:							
Primary Indicat	tors (minimum of one	e required; o					dary Indicators (2 or r	
Surface Wa	iter (A1)		Water-Stained MLRA 1, 2, 4/				ater-Stained Leaves (and 4B)	B9) (MLRA 1, 2,
_ High Water			Salt Crust (B1	'1)	•)		rainage Patterns (B10)
Saturation (Aquatic Invert	ebrates (E	313)	Dı	ry-Season Water Tabl	e (C2)
Water Mark	s (B1)		Hydrogen Sulf			Sa	aturation Visible on Ae	erial Imagery (C9)
Sediment D	eposits (B2)		Oxidized Rhiz Roots (C3)	ospheres	along Living	G	eomorphic Position (D	10)
Drift Deposi			Presence of R	Reduced Ir	ron (C4)		nallow Aquitard (D3)	12)
			Recent Iron R				()	
Algai Mat or	r Crust (B4)		Soils (C6)	d DI-		FA	AC-Neutral Test (D5)	
Iron Deposi	ts (B5)		Stunted or Str (LRR A)	essed Pla	ints (D1)	R	aised Ant Mounds (D6	:\ (I PP A \
Surface Soi	l Cracks (B6)		Other (Explain	in Rema	rks)		ost-Heave Hummocks	
	Visible on Aerial Ima				•			,
_ Sparsely Ve	egetated Concave Si	urtace (B8)						
Field Observa	tions:							
Surface Water		No	x Depth (inches):					
Water Table Pr		No _	x Depth (inches):		Wet	land Hydro	logy Present? Ye	s No x
Saturation Pres (includes capilla		NI.	V Donth (inches)			-		
<u> </u>			X Depth (inches): ring well, aerial photo	e provide	in inconstitution	V if an = 11 1 1		
COURS MECULA	ca Data (Stream gat	age, monitol	ing well, aeriai prioto	s, previou	is inspections), it available	9.	
emarks:								

7000 OF 400th P	:h./Co	Crookem/Mult	nomah	Sampling Date: August 4, 2021
		State: OR		
Applicant/Owner: Jim Leeper Investigator(s): Jason Smith		wnship, Range:	_	
Landform (hillstone terrace etc.): Terrace				one): <u>Concave</u> Slope (%): <u><1%</u>
Subregion (LRR): A La	at: 45 4646	72° Long:	-122 466	107° Datum: WGS84
Soil Map Unit Name: Powell silt Loam		72 Long.		VI classification: NA
Are climatic / hydrologic conditions on the site typica				
Are Vegetation - Soil - v. or Hydrology	v signific	antly disturbed	2 Are "No	ormal Circumstances" present? Yes _x No
Are Vegetation , Soil , or Hydrology	signific	ly problematic?) (If needed, explain any answers in Remarks.)
Ale vegetation, soil, or rivatology		ny problemana.	•	,
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	0 <u>x</u>			
Hydric Soil Present? Wetland Hydrology Present? Yes x N Yes N	lo x			in a Wetland? Yes Nox
Remarks: Historically, no wetland features are map	oed for this stu	idy area. Study	area is hist	orically forested with conversion to pasture in the early
1900's. Drainage affected by drain tiles. Study area area plant community is affected by grazing and ha	a plant commu	inity is typical f	or forage see	ed blends with some invasive species intestation. Study
VEGETATION - Use scientific names of	f plants.			
VEGETATION — Use scientino names e	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2.				Total Number of Dominant
3,				Species Across All Strata: 3 (B)
4.				Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				
1,				Total % Cover of: Multiply by:
2,,,				OBL species
3.	-			FACW species
4.0	-			FAC species
5.0				FACU species
	·	= Total Cove	Г	UPL species x 5 =
Herb Stratum (Plot size: 5)			=	Column Totals: (A) (B)
1. Holcus lanatus*	40	X	FAC*	Bernalana ladar = B/A =
2. Ranunculus repens	35	X	FAC	Prevalence Index = B/A =
Schedonorus pratensis/arundinaceus*	15	X	FACU	Hydrophytic Vegetation Indicators:
4. Vicia villosa	1		NOL	
5. Alopecurus pratensis	10		FAC*	1 - Rapid Test for Hydrophytic Vegetation
6	·			2 - Dominance Test is >50%
7	_			3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹
10				x Problematic Hydrophytic Vegetation¹ (Explain)
11.		T 1 1 0		. —
	101	= Total Cove	er	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)				be present, unless distanced of presentation
1k				
2.	-	T 1 1 2		Hydrophytic
		= Total Cove	er	Vegetation
% Bare Ground in Herb Stratum0				Present? Yes Nox_
				1 2 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
Remarks: Holcus lanatus and Alopecurus pratensi	s have ZERO	tolerance for a	naerobic soil	conditions. Schedonorus pratensis/arundinaceus ntified as low tolerance for anaerobic soil conditions. The
(tall/meadow fescue) are difficult to distinguish from	reach other in pland areas.	In accordance	with '87 Corp	o Manual and Regional Supplement procedures, the
pasture grass plant community is identified as non-	hydrophytic fo	r this site.		

SOIL							Sampling Poi	nt: 1.2
Profile Des	cription: (Describe	to the dep	th needed to docun			onfirm the ab	sence of indicators	s.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	Redox Fe		1 2	- .	
	 		Color (moist)	_ % _	Type ¹	Loc ²	Texture	Remarks
_0-6	7.5YR 4/2	100						
6-12	7.5YR 3/3	_50	_10YR 5/4	_10	_C	_M		
6-12	7.5YR 3/2	50						,
			:					(————
				7	-			
		_	-			-		
						=====2		: :
¹ Type: C=C	oncentration, D=Der	oletion. RM=	Reduced Matrix, CS	=Covered	or Coated Sa	nd Grains	² Location: PL=Pore	a Lining M-Matrix
		cable to all	LRRs, unless other	rwise not	ed.)	Indic	ators for Problema	tic Hydric Soils³:
Histoso	` '	_	Sandy Redox (S				cm Muck (A10)	
	pipedon (A2) listic (A3)	_	Stripped Matrix (Loamy Mucky Mi		(evcent MI B		ed Parent Material (ery Shallow Dark Su	
Hydrog	en Sulfide (A4)	_	Loamy Gleyed M	latrix (F2)	(except with		ther (Explain in Ren	
	ed Below Dark Surface	ce (A11)	 Depleted Matrix ((F3)			(
	Park Surface (A12) Mucky Mineral (S1)	_	Redox Dark Surf		· ·	3	ndicators of hydroph	ytic vegetation and
Sandy (Gleyed Matrix (S4)	_	 Depleted Dark Street Redox Depression)		etland hydrology mu nless disturbed or pr	
	, (/) (i d)	T		liess disturbed or pr	Oblematic
Restrictive La	ayer (if present):							
Type:					Hydric So	il Present?	Yesx	No
Depth (incl	hes):				1		-	
emarks:								
YDROLOG								
Wetland Hydr	ology Indicators:	TOTAL MODELN	1 1 11 11 1 1 1 1					
Timary muica	tors (minimum of one	e requirea; d	neck all that apply) Water-Stained	d Leaves (PO) /ovcont		ary Indicators (2 or r	
Surface Wa			MLRA 1, 2, 4				er-Stained Leaves (and 4B)	B9) (MLRA 1, 2,
	Table (A2)		Salt Crust (B1	11)			inage Patterns (B10)
Saturation (Water Mark			Aquatic Invert				Season Water Tabl	
_ water ivialis	(S (D1)		— Hydrogen Sul Oxidized Rhiz			Sati	uration Visible on Ae	erial Imagery (C9)
Sediment D	Deposits (B2)		Roots (C3)	.ospiicies	along Living	Geo	morphic Position (D	2)
_ Drift Depos	its (B3)		Presence of F				llow Aquitard (D3)	/
Algal Mat o	r Crust (B4)		Recent Iron R	eduction i	n Tilled	E 4.5	. N	
_ Algai Iviat U	r Crust (B4)		Soils (C6) Stunted or Str	essed Pla	nts (D1)	FAC	-Neutral Test (D5)	
Iron Deposi			(LRR A)	00000110	into (DT)	Rais	sed Ant Mounds (D6) (LRR A)
	il Cracks (B6)	 :	Other (Explain	ı in Rema	rks)		st-Heave Hummocks	
	Visible on Aerial Ima egetated Concave Si							
. Oparacily vo	ogetated Concave Si	unace (bo)						
ield Observa	tions:							
urface Water		No _	x Depth (inches):					
/ater Table Pr		No _	x Depth (inches):		Wet	land Hydrolo	gy Present? Ye	s No _x
aturation Pres ncludes capilla		No	X Depth (inches):					
			ing well, aerial photo	s previou	s inspections	if available:		
	ou Daw (ou oam gar	ago, monitor	ing won, dendi prioto	os, previou	is inspections,	, ii avallable.		
marks:								

7000 05 400h D-	:t(Ot	Creeker Atu	lmomob	Sampling Date: August 4, 2021				
-		State: OR						
Applicant/Owner: Jim Leeper		wnship, Range						
				none): <u>Concave</u> Slope (%): <u><1%</u>				
		287° Long:						
	at. 43.404.	ZOT LUNG.		WI classification: NA				
Soil Map Unit Name: Cascade silt Loam Are climatic / hydrologic conditions on the site typical	al far this time	of year? Voc						
Are climatic / nydrologic conditions on the site typica	ai ioi iiis iine	contly disturbed	_X NO _	ormal Circumstances" present? Yes _x_ No				
				If needed, explain any answers in Remarks.)				
Are Vegetation, Soil, or Hydrology	пашта	ally problematic	٠: ر	in fleeded, explain any anowers in remarkery				
SUMMARY OF FINDINGS - Attach site	map show	ving sampli	ng point l	ocations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No _x_								
Hydric Soil Present? Wetland Hydrology Present? Yes x N Yes X	lo <u>x</u>							
Remarks: Historically, no wetland features are map	ped for this st	udy area. Stud	ly area is hist	torically forested with conversion to pasture in the early				
1900's. Drainage affected by drain tiles. Study are area plant community is affected by grazing and ha	a plant comm ving This da	unity is typical ta point is re-ev	tor torage set valuated from	ed blends with some invasive species infestation. Study the 2019 wetland delineation (Wetland 1.3)				
area plant community is anected by grazing and na	ying. Thio du	ta point to to o	alaatoa iroiii					
VEGETATION III	£							
VEGETATION – Use scientific names of				Dominance Test worksheet:				
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Number of Dominant Species				
			<u>Oldido</u>	That Are OBL, FACW, or FAC: 0(A)				
1				Total Number of Dominant				
2				Species Across All Strata: 2 (B)				
4.				Percent of Dominant Species				
T-1,				That Are OBL, FACW, or FAC:0 (A/B)				
	-	= Total Cove	er					
Sapling/Shrub Stratum (Plot size:)	: 	-		Prevalence Index worksheet:				
1.				Total % Cover of: Multiply by:				
2.				OBL species				
3.				FACW species				
4.				FAC species				
5.				FACU species				
o		= Total Cove	er	UPL species x 5 =				
Herb Stratum (Plot size: 5)		_		· · · · · · · · · · · · · · · · · · ·				
1. Holcus lanatus*	75	X	FAC*	Column Totals: (A) (B)				
Schedonorus pratensis/arundinaceus	20	X	FAC*	Prevalence Index = B/A =				
3.								
4.				Hydrophytic Vegetation Indicators:				
5.				1 - Rapid Test for Hydrophytic Vegetation				
6.				2 - Dominance Test is >50%				
7.	\ <u></u>			3 - Prevalence Index is ≤3.01				
8.				4 - Morphological Adaptations ¹ (Provide supporting				
9.				data in Remarks or on a separate sheet)				
10,	V			5 - Wetland Non-Vascular Plants ¹				
114				x Problematic Hydrophytic Vegetation¹ (Explain)				
	95	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must				
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.				
1,								
2.				Undershootie				
		= Total Cov	er	Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0				Present? Yes No x				
Remarks: Holcus lanatus and Alopecurus pratensis	s have ZERO	tolerance for a	naerobic soil	conditions. Schedonorus pratensis/arundinaceus				
(tall/meadow fescue) are difficult to distinguish from	neach other in	n the field – but	both are ider	ntified as low tolerance for anaerobic soil conditions. The				
pasture grass plant community is dominant in the u pasture grass plant community is identified as non-	pland areas.	In accordance	with '87 Corp	Manual and Regional Supplement procedures, the				
pasture grass prant community is identified as non-	nyaropitytic it	and one.						

SOIL							Sampling Point	1.3
Profile Desc	cription: (Describe	to the depti	h needed to docum	ent the inc	dicator or co	onfirm the al	bsence of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	Redox Fea %	Type ¹	Loc ²	Texture	Remarks
0-2	10YR 3/2	95	10YR 4/4		C	=====		Remarks
2-8	10YR 3/2	100	10111 4/4	_5		_M	Silt loam	=======================================
8-10	7.5YR 3/2	100			-			
S 	-							
			·					
		::	· 					
¹Type: C=C	oncentration, D=Dep	letion, RM=F	Reduced Matrix, CS	=Covered o	or Coated Sa	nd Grains.	² Location: PL=Pore I	_ining, M=Matrix.
Hydric Soil	Indicators: (Applie	able to all I	LRRs, unless other	wise noted	d.)	Indi	cators for Problematic	: Hydric Soils³:
Histoso			_ Sandy Redox (St	5)			2 cm Muck (A10)	-
	pipedon (A2)	_	Stripped Matrix (Red Parent Material (TF	
	listic (A3) en Sulfide (A4)	_	Loamy Mucky Mi Loamy Gleyed M		except MLR		/ery Shallow Dark Surf Other (Explain in Rema	
Deplete	d Below Dark Surfac	e (A11) <u>x</u>	Depleted Matrix ((F3)		— `	Salor (Explain in Norma	ikoj
Thick D	ark Surface (A12) Mucky Mineral (S1)	_	Redox Dark Surfa Depleted Dark St			3	Indicators of hydrophyt	ic vegetation and
	Gleyed Matrix (S4)	_	Redox Depressio	٠,		V	vetland hydrology must inless disturbed or prob	be present, plematic
			·					
	yer (if present):							
Type: Depth (inch					Hydric Soi	il Present?	Yesx	No
Remarks:								
rtomarto								
HYDROLOG	Y							
Wetland Hydr	ology Indicators:							
Primary Indicat	tors (minimum of one	required; ch		-1.1 (5	10) (dary Indicators (2 or mo	
Surface Wa	ater (A1)		Water-Stained MLRA 1, 2, 4				iter-Stained Leaves (B9 , and 4B)	9) (MLRA 1, 2,
High Water	Table (A2)		Salt Crust (B1				ainage Patterns (B10)	
Saturation (Aquatic Invert				/-Season Water Table	
Water Mark	S (B1)		— Hydrogen Sul Oxidized Rhiz	,	. ,	Sa	turation Visible on Aeria	al Imagery (C9)
	eposits (B2)		Roots (C3)	oophores a	nong Living	Ge	omorphic Position (D2)	
Drift Deposi	its (B3)		Presence of F				allow Aquitard (D3)	
Algal Mat o	r Crust (B4)		Recent Iron R Soils (C6)	leduction in	lilled	FΔ	C-Neutral Test (D5)	
	, ,		Stunted or Str	essed Plan	ts (D1)	'^	o Nedalai Test (DS)	
Iron Deposi			(LRR A)				ised Ant Mounds (D6) (,
	il Cracks (B6) Visible on Aerial Ima	nery (B7)	Other (Explain	ı in Kemark	(S)	Fro	st-Heave Hummocks (D7)
	egetated Concave Su							
5' 110'	4.							
Field Observater Surface Water		No 2	X Depth (inches):					
Water Table Pr			X Depth (inches):	-	— Wet	land Hydrol	ogy Present? Yes	No x
Saturation Pres	sent?				_	iuna riyaror	ogy i resent: Tes	NO X
(includes capilla			M Depth (inches):					
Describe Record	led Data (stream gau	ige, monitori	ng well, aerial photo	s, previous	inspections)), if available:		
Remarks:								

7000 CF 400h D-	City/County:	Grocham/Mul	tnomah	Sampling Date: August 4, 2021			
-		State: OR					
Applicant/Owner: Jim Leeper							
Investigator(s): Jason Smith	Section, rov	l relief (concar	/A CONVAY D	one): Concave Slope (%): 2%			
Subregion (LRR): A							
Soil Map Unit Name: Powell silt Loam	Lat. 45.4040	tong.		VI classification: NA			
Are climatic / hydrologic conditions on the site typ	ical for this time	of year? Yes					
Are Vegetation x , Soil x , or Hydrologic				ormal Circumstances" present? Yes _x No			
Are Vegetation , Soil , or Hydrolog	ny natural	lv problematic		If needed, explain any answers in Remarks.)			
			,				
SUMMARY OF FINDINGS - Attach sit	te map show	ing sampli	ng point le	ocations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No Set No X Wetland Hydrology Present? Yes No X Is the Sampled Area within a Wetland? Yes No X							
Remarks: Historically, no wetland features are ma	apped for this stu	dy area. Stud	y area is hist	orically forested with conversion to pasture in the early			
1900's. Drainage affected by drain tiles. Study a area plant community is affected by grazing and l	rea niant commu	inity is typical t	or torage see	ed plends with some invasive species intestation. Olddy			
	e 2000						
VEGETATION – Use scientific names		5	11:	Dominance Test worksheet:			
Tree Stratum (Plot size:)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:0(A)			
1.				Total Number of Dominant			
2.				Species Across All Strata:2 (B)			
3.				Percent of Dominant Species			
4.	÷:			That Are OBL, FACW, or FAC:0 (A/B)			
	-	= Total Cove	er				
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:			
1.				Total % Cover of: Multiply by:			
2.				OBL species			
3.				FACW species			
4.				FAC species			
5.				FACU species			
		= Total Cove	er	UPL species x 5 =			
Herb Stratum (Plot size: 5)				Column Totals: (A) (B)			
1. Holcus lanatus*	70	X	FAC*				
2. Schedonorus pratensis/arundinaceus	20	X	FAC*	Prevalence Index = B/A =			
3. Anthoxanthum odoratum	5		FACU	II I I I I I I I I I I I I I I I I I I			
4. Ranunculus repens	5		FAC	Hydrophytic Vegetation Indicators:			
5				1 - Rapid Test for Hydrophytic Vegetation			
6.	-			2 - Dominance Test is >50%			
7.				3 - Prevalence Index is ≤3.0¹			
8.				4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)			
9.				5 - Wetland Non-Vascular Plants ¹			
10				x Problematic Hydrophytic Vegetation¹ (Explain)			
11		T 1 10					
2	100	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Woody Vine Stratum (Plot size:)				Bo processing emission emission of pro-			
1.				-			
2	-	= Total Cov	or.	Hydrophytic			
	-	TOTAL COV	Ç1	Vegetation Present? Yes No x			
% Bare Ground in Herb Stratum0				Liesenr: 169 MO			
				Landitions Cahadaparus protonois/arundinaceus			
(tall/mandow faccus) are difficult to distinguish fr	om each other in	the field - but	both are ide	conditions. Schedonorus pratensis/arundinaceus ntified as low tolerance for anaerobic soil conditions. The			
pasture grass plant community is dominant in the	e upland areas.	In accordance	with '87 Corp	p Manual and Regional Supplement procedures, the			
pasture grass plant community is identified as no	on-hydrophytic fo	r this site.					

Depth (inches) 0-4	iption: (Describe Matrix Color (moist)	to the dep	th needed to docum	nent the in	. dianta	f:	sence of indicators	T
(inches) 0-4					idicator or co	onfirm the al	osence of indicators,)
0-4				Redox Fe				•
		_ %	Color (moist)	%	_Type¹	_Loc ²	Texture	Remarks
	10YR 4/2	_99	_10YR 4/4	<1_	_c	_M	Silt loam	
4-12	7.5YR 3/2	95	_10YR 5/4	_5	_C	_M		
			2			,		

							-	Ŋ .
¹Type: C=Con	centration, D=Dep	letion. RM=	Reduced Matrix, CS	=Covered	or Coated Sa	nd Grains	² Location: PL=Pore	Lining M-Matrix
			LRRs, unless other					
Histosol (/		able to all	Sandy Redox (St		a.)		cators for Problemati	c Hydric Soils*;
	pedon (A2)	_	Stripped Matrix (! cm Muck (A10) Red Parent Material (T	F2)
Black Hist		_	Loamy Mucky Mi	ineral (F1)	(except MLR		ery Shallow Dark Sur	
	Sulfide (A4) Below Dark Surfac	- (A11) —	Loamy Gleyed M Depleted Matrix (_ 0	Other (Explain in Rema	arks)
	k Surface (A12)		 Depleted Matrix (X Redox Dark Surfa 	ace (F6)		3)	Indicators of hydrophy	tio vogotation and
	icky Mineral (S1)	_	Depleted Dark St	urface (F7)	W	vetland hydrology mus	t be present.
Sandy Gle	eyed Matrix (S4)	_	Redox Depressio	ons (F8)		u	nless disturbed or pro	blematic
estrictive Laye	er (if present):							
Туре:					Hydric Soi	I Present?	Yes x	No
Depth (inches	s):							
					E			
'DROLOGY					£:			
etland Hydrol	ogy Indicators:	required: c	back all that apply)		51	Second		
etland Hydrolo imary Indicator	ogy Indicators: s (minimum of one	required; c	heck all that apply) Water-Stained	d Leaves (B9) (except		lary Indicators (2 or m	
etland Hydrold imary Indicator Surface Wate	ogy Indicators: rs (minimum of one r (A1)	required; c	Water-Stained MLRA 1, 2, 4	A, and 4B		Wa 4A ,	ter-Stained Leaves (B and 4B)	
etland Hydrold imary Indicator Surface Wate High Water Ta	ogy Indicators: rs (minimum of one r (A1) able (A2)	required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1	A, and 4B 1))	Wa 4A, Dra	ter-Stained Leaves (B and 4B) inage Patterns (B10)	9) (MLRA 1, 2,
etland Hydrold imary Indicator Surface Wate High Water Ta Saturation (A3	ogy Indicators: s (minimum of one r (A1) able (A2) 3)	required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert	A, and 4B (1) tebrates (E	313)	Wa 4A , Dra Dry	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table	9) (MLRA 1, 2, (C2)
etland Hydrolo imary Indicator Surface Wate High Water Ta Saturation (A3 Water Marks (ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1)	required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1	A, and 4B 11) tebrates (B fide Odor) 313) (C1)	Wa 4A , Dra Dry	ter-Stained Leaves (B and 4B) inage Patterns (B10)	9) (MLRA 1, 2, (C2)
etland Hydrolo imary Indicator Surface Wate High Water Ta Saturation (A3 Water Marks (Sediment Dep	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2)	required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3)	A, and 4B 11) tebrates (E fide Odor cospheres) 313) (C1) along Living	Wa 4A, Dra Dry Sat	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2	9) (MLRA 1, 2, (C2) al Imagery (C9)
etland Hydrolo imary Indicator Surface Wate High Water Ta Saturation (A3 Water Marks (ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2)	required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of R	A, and 4B (1) tebrates (E fide Odor cospheres Reduced Ir) 313) (C1) along Living on (C4)	Wa 4A, Dra Dry Sat	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri	9) (MLRA 1, 2, (C2) al Imagery (C9)
etland Hydrolo imary Indicator Surface Wate High Water Ta Saturation (A3 Water Marks (Sediment Dep	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3)	required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6)	A, and 4B 1) tebrates (E fide Odor cospheres Reduced Ir teduction in	and the state of t	Wa 4A, Dra Dry Sat	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2	9) (MLRA 1, 2, (C2) al Imagery (C9)
etland Hydrole imary Indicator Surface Wate High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4)	required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str	A, and 4B 1) tebrates (E fide Odor cospheres Reduced Ir teduction in	and the state of t	Wa 4A, Dra Dry Sat Geo Sha	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5)	9) (MLRA 1, 2, (C2) al Imagery (C9)
etland Hydrole imary Indicator Surface Wate. High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5)	required; c	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 11) tebrates (E fide Odor cospheres Reduced In teduction in	and the state of t	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
etland Hydrolo imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Image	gery (B7)	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str	A, and 4B 11) tebrates (E fide Odor cospheres Reduced In teduction in	and the state of t	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5)	9) (MLRA 1, 2, (C2) al Imagery (C9))
etland Hydrolo imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6)	gery (B7)	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 11) tebrates (E fide Odor cospheres Reduced In teduction in	and the state of t	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
etland Hydrole imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	ogy Indicators: rs (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Image	gery (B7)	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 11) tebrates (E fide Odor cospheres Reduced In teduction in	and the state of t	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
etland Hydrole imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege eld Observation urface Water Pre	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) crust (B4) (B5) cracks (B6) sible on Aerial Imagetated Concave Su cons: esent? Yes	gery (B7) rface (B8)	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 11) tebrates (E fide Odor cospheres Reduced In teduction in	and the state of t	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
etland Hydrole imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege eld Observation urface Water Pres	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) cracks (B6) sible on Aerial Image etated Concave Su cons: esent? Yes sent? Yes	gery (B7) rface (B8)	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 11) tebrates (E fide Odor cospheres Reduced In teduction in) 313) (C1) along Living on (C4) n Tilled nts (D1)	Wa 4A, Dra Dry Sat Geo Sha FAC Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
etland Hydrole imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege eld Observation urface Water Pre	ogy Indicators: s (minimum of one r (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Imagetated Concave Su cons: esent? Yes ent? Yes ent?	gery (B7) rface (B8) No	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain X Depth (inches): Depth (inches):	A, and 4B 11) tebrates (E fide Odor cospheres Reduced In teduction in) 313) (C1) along Living on (C4) n Tilled nts (D1)	Wa 4A, Dra Dry Sat Geo Sha FAC Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
etland Hydrole imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege eld Observation urface Water Presenter Table Presenturation Preser cludes capillary	ogy Indicators: s (minimum of one or (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Image etated Concave Su cons: esent? Yes ent? Yes ort? y fringe) Yes	pery (B7) rface (B8) No No	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain X Depth (inches): X Depth (inches):	A, and 4B 11) tebrates (E fide Odor cospheres Reduced Ir reduction in ressed Pla in Reman) 313) (C1) along Living on (C4) n Tilled nts (D1) rks) Wet	Wa 4A, Dra Dry Sat Gec Sha FAC Rais Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
etland Hydrole imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege eld Observation urface Water Presenter Table Presenturation Preser cludes capillary	ogy Indicators: s (minimum of one or (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Image etated Concave Su cons: esent? Yes ent? Yes ort? y fringe) Yes	pery (B7) rface (B8) No No	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain X Depth (inches): Depth (inches):	A, and 4B 11) tebrates (E fide Odor cospheres Reduced Ir reduction in ressed Pla in Reman) 313) (C1) along Living on (C4) n Tilled nts (D1) rks) Wet	Wa 4A, Dra Dry Sat Gec Sha FAC Rais Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
etland Hydrole imary Indicator Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege eld Observation urface Water Presenter Table Presenturation Preser cludes capillary	ogy Indicators: s (minimum of one or (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Image etated Concave Su cons: esent? Yes ent? Yes ort? y fringe) Yes	pery (B7) rface (B8) No No	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain X Depth (inches): X Depth (inches):	A, and 4B 11) tebrates (E fide Odor cospheres Reduced Ir reduction in ressed Pla in Reman) 313) (C1) along Living on (C4) n Tilled nts (D1) rks) Wet	Wa 4A, Dra Dry Sat Gec Sha FAC Rais Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)

	011 /0	0-1-014		Sampling Date: August 4, 2021
			Sampling	
Applicant/Owner: Jim Leeper				
Investigator(s): Jason Smith Landform (hillslope, terrace, etc.): Terrace				
		68° Long:		
J , ,	Lat: 45.4652	bo Long.		WI classification: NA
Soil Map Unit Name; Cascade silt Loam Are climatic / hydrologic conditions on the site typi	cal for this time	of year? Ves		
Are climatic / nydrologic conditions on the site typi	v signific	or year: res	Δre "No	ormal Circumstances" present? Yes _x No
Are Vegetation, Soil, or Hydrolog	y x signific	ly problematic?	// ///	If needed, explain any answers in Remarks.)
Are vegetation , soil , or rivuloing		y propiomatio.	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
SUMMARY OF FINDINGS - Attach site	e map show	ing samplin	g point le	ocations, transects, important features, etc
Hydrophytic Vegetation Present? Yes	No x			
Hydric Soil Present? Yes		is the Sample	d Area with	in a Wetland? Yes Nox_
Wetland Hydrology Present? Yes				
Remarks: Historically, no wetland features are ma	pped for this stu	dy area. Study	area is hist	torically forested with conversion to pasture in the early ed blends with some invasive species infestation. Study
area plant community is affected by grazing and h	ea piant commu aving. This data	nity is typical it a point is re-eva	luated from	the 2019 wetland delineation (Wetland 1.8)
area plant community is anosted by grazing and in				
VEGETATION III and a difference				
VEGETATION – Use scientific names			1 12 .1	Dominance Test worksheet:
Tree Stratum (Plot size:)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Number of Dominant Species
		Opcoles.	Ototao	That Are OBL, FACW, or FAC:1 (A)
1				Total Number of Dominant
2.				Species Across All Strata: 2 (B)
4.				Percent of Dominant Species
T				That Are OBL, FACW, or FAC: (A/B)
		= Total Cover		
Sapling/Shrub Stratum (Plot size:)	-			Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.				OBL species
3.				FACW species
4.				FAC species
5				FACU species
-		= Total Cover		UPL species
Herb Stratum (Plot size: 5)	:			Column Totals: (A) (B)
1. Holcus lanatus*	50	X	FAC*	Column Totals (A) (B)
Schedonorus pratensis/arundinaceus	10		FAC*	Prevalence Index = B/A =
3. Ranunculus repens	20	X	FAC	
4. Alopecurus pratensis	10		FAC*	Hydrophytic Vegetation Indicators:
5. Cirsium arvense	5		FAC	1 - Rapid Test for Hydrophytic Vegetation
6. Vicia villosa	<5		NOL	2 - Dominance Test is >50%
7.				3 - Prevalence Index is ≤3.01
8.				4 - Morphological Adaptations¹ (Provide supportin
9.				data in Remarks or on a separate sheet)
10.				5 - Wetland Non-Vascular Plants ¹
11.				_x_ Problematic Hydrophytic Vegetation¹ (Explain)
	95	= Total Cove	г	¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1,				
2.				Hydrophytic
		= Total Cove	г	Vegetation
% Bare Ground in Herb Stratum _0				Present? Yes No _x
Remarks: Holcus lanatus and Alopecurus praten	sis have ZERO	olerance for an	aerobic soil	conditions. Schedonorus pratensis/arundinaceus
(tall/meadow fescue) are difficult to distinguish fro	m each other in	the field - but b	ooth are ider	ntified as low tolerance for anaerobic soil conditions. The
pasture grass plant community is dominant in the pasture grass plant community is identified as nor	upland areas. I	n accordance v	vitn 8/ Corp	Manual and Regional Supplement procedures, the
pasture grass plant community is identified as not	. Hydrophlytic lo	ano ono.		

SOIL							Sampling Poin	1.10	
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix	0/	-0.1	Redox Fe					
(inches) 0-4	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks	
·	7.5YR 3/2						Silt Ioam	\	
4-6	7.5YR 3/2	95	10YR 4/4	_5	_C	_ M	-		
6-12	5YR 3/3	_98	10YR 4/4	2	С	_ M		·;	
								*	
			-					*	
-								·	
¹Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, CS	=Covered	or Coated Sa	and Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil	Indicators: (Applie	able to all	LRRs, unless other	rwise note	ed.)	Indi	icators for Problemati	c Hydric Soils ³ :	
Histoso			Sandy Redox (S		,		2 cm Muck (A10)	,	
	pipedon (A2)	_	Stripped Matrix (S6)			Red Parent Material (T	F2)	
	listic (A3)	_	Loamy Mucky Mi	ineral (F1)	(except ML		Very Shallow Dark Sur		
	en Sulfide (A4) ed Below Dark Surfac	- (A11)	Loamy Gleyed M Depleted Matrix (Other (Explain in Rema	arks)	
Thick D	ark Surface (A12)		Redox Dark Surf	ace (F6)			3Indicators of hydrophy	tic vegetation and	
Sandy N	Mucky Mineral (S1)		Depleted Dark Si)	,	wetland hydrology mus	t be present,	
Sandy (Gleyed Matrix (S4)		Redox Depression	ons (F8)			unless disturbed or pro	blematic	
Restrictive La	yer (if present):								
Type:	iyer (ii preseiit).				Usadala Ca	:! D	V		
Depth (incl	hes):				nyaric Sc	oil Present?	Yes	Nox	
Remarks:									
remarks.									
HYDROLOG									
Primary Indica	ology Indicators: tors (minimum of one	required: o	check all that apply)			Cocon	dan Indianto a 10		
	to o (minimum or or or	roquirou, c	Water-Stained	d Leaves ((B9) (except		idary Indicators (2 or m ater-Stained Leaves (B		
Surface Wa			MLRA 1, 2, 4	A, and 4B			A, and 4B)	o) (MEIOT 1, 2,	
High Water Saturation (Table (A2)		Salt Crust (B1		3.40)		ainage Patterns (B10)		
Water Mark			Aquatic Invert				y-Season Water Table aturation Visible on Aeri		
	(5 (5))		Oxidized Rhiz			38	ituration visible on Aeri	ai imagery (C9)	
	Peposits (B2)		Roots (C3)	•	0 0	Ge	eomorphic Position (D2)	
Drift Depos	its (B3)		Presence of R			Sh	nallow Aquitard (D3)		
Algal Mat o	r Crust (B4)		Recent Iron R Soils (C6)	reduction i	n Tilled	ΕΛ	C-Neutral Test (D5)		
	` ,		Stunted or Str	essed Pla	ints (D1)	'	(C-Neutral Test (D3)		
Iron Deposi	` '		(LRR A)		. ,		aised Ant Mounds (D6)		
	il Cracks (B6) Visible on Aerial Ima	non/ (B7)	Other (Explain	n in Remai	rks)	Fro	ost-Heave Hummocks	(D7)	
	egetated Concave Su								
Field Observa									
Surface Water			X Depth (inches):	_					
Water Table Pr Saturation Pres		No _	X Depth (inches):		We	tland Hydro	logy Present? Yes	Nox	
(includes capilla		No	X Depth (inches):						
Describe Record	led Data (stream gau	ge, monitor	ring well, aerial photo	s, previou	s inspections	a), if available	e: Previously (April 201	9) identified with	
saturation at -11	inches (A3) and redo	ox starting a	at -5.5 inches. Redox	x similar in	2021, but so	oil did not me	et F6 color indicator pa	st 6 in. Redox layer	
within requisite c	color was only 2" thicl	ζ.					·	-	
Remarks:									
			Œ						

Project/Site: 7928 SE 190 th Dr Cit	v/Countv:	Gresham/Multi	nomah	Sampling Date: August 4, 2021
Applicant/Owner: Jim Leeper		State: OR		
		wnship, Range:		
				one): Concave Slope (%): <1%
				247° Datum: WGS84
Soil Map Unit Name: Cascade silt Loam				VI classification: NA
Are climatic / hydrologic conditions on the site typical	for this time	of year? Yes	x No	(If no, explain in Remarks.)
Are Vegetation x , Soil x , or Hydrology				ormal Circumstances" present? Yes x No
Are Vegetation, Soil, or Hydrology				If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site I	map show	ing samplir	g point le	ocations, transects, important features, etc.
Hydric Soil Present? Yes No. Wetland Hydrology Present? Yes No.) _x_			in a Wetland? Yes No _x_
Remarks: Historically, no wetland features are mapp 1900's. Drainage affected by drain tiles. Study area area plant community is affected by grazing and hay	plant commu	idy area. Study unity is typical fo	area is histo or forage see	orically forested with conversion to pasture in the early ed blends with some invasive species infestation. Study
VEGETATION III-a - i-antific mamoo of	i mlanta			
VEGETATION – Use scientific names of	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:) 1	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3 4				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		= Total Cover		
Sapling/Shrub Stratum (Plot size:)		-		Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2.				OBL species
3.				FACW species
4.				FAC species
5.				FACU species
		= Total Cove		UPL species x 5 =
Herb Stratum (Plot size: 5)				Column Totals: (A) (B)
1. Holcus lanatus*	50	X	FAC*	Coldini Fotalo.
2. Schedonorus pratensis/arundinaceus	25	X	FAC*	Prevalence Index = B/A =
3. Alopecurus pratensis	15		FAC*	
4. Anthoxanthum odoratum	10		FACU	Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7.				3 - Prevalence Index is ≤3.0¹
8.				4 - Morphological Adaptations¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				5 - Wetland Non-Vascular Plants ¹
11.				x Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:)	100	= Total Cove	r	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1				
	-			
2.		= Total Cove	•	Hydrophytic
% Bare Ground in Herb Stratum _ 0	-	10.01.000		Vegetation Present? Yes Nox
	have ZEDO	toloronno for a	porchie coll	conditions Schedonorus pratensis/arundinaceus
pasture grass plant community is dominant in the up	each other in land areas.	the field – but l In accordance v	ooth are ider	ntified as low tolerance for anaerobic soil conditions. The
pasture grass plant community is identified as non-h	yuropriyiic to	i iilis site.		

SOIL							Sampling Poli	nt: 1.16
Profile Desc	ription: (Describe	to the depth	needed to docum	ent the in	dicator or co	nfirm the ab	sence of indicators	.)
Depth	Matrix			Redox Fea	atures			
<u>(inches)</u>	Color (moist)	%	Color (moist)	%	_Type ¹ _	_ Loc ²	Texture	Remarks
0-12	7.5YR 6/3	100	10YR 4/4	2	0	M		
	7.011(0)0		1011(4/4		_C	_M		\ <u></u> \
						-		/
								R 1:
·				$\overline{}$	·			s = 0
		-						
							(======)	
1=		:					(
Type: C=Co	oncentration, D=Dep	letion, RM=F	Reduced Matrix, CS	=Covered	or Coated Sar	nd Grains.	² Location: PL=Pore	: Lining, M=Matrix.
Undeia Cail	Indiantana (A							
Hydric Soil	Indicators: (Applie	cable to all L	RRs, unless other	wise note	d.)	Indica	ators for Problema	tic Hydric Soils³:
Histosol	(A1)		Sandy Redox (St	5)		2	cm Muck (A10)	
Histic Ep	oipedon (A2)		Stripped Matrix (8				ed Parent Material (*	Γ F 2\
Black Hi	istic (A3)		Loamy Mucky Mi		except MLR		ery Shallow Dark Su	
	en Sulfide (A4)	_	Loamy Gleyed M		(ther (Explain in Rem	
	d Below Dark Surfac	e (A11)	Depleted Matrix (inci (Explain in Neil	aiks)
Thick Da	ark Surface (A12)	_ (,	Redox Dark Surfa			31.	adioatora af budanub	
	lucky Mineral (S1)		Depleted Dark Su			11	ndicators of hydroph etland hydrology mu	ylic vegetation and
	Bleyed Matrix (S4)	_	Redox Depressio				nless disturbed or pr	
	,	_		110 (1 0)		ui ui	ileas disturbed or pri	Dolematic
Restrictive La	yer (if present):							
	yor (ii present).							
Type:					Hydric Soi	l Present?	Yes	Nox
Depth (inch	es):							
Remarks:								
HYDROLOG	v							
Primany Indicate	ology Indicators:							
_ Filliary indicate	ors (minimum of one	requirea; cr	ieck all that apply)				ary Indicators (2 or n	
Curtons Was	ton (Ad)		Water-Stained				er-Stained Leaves (I	39) (MLRA 1, 2,
Surface Wat			MLRA 1, 2, 4)		and 4B)	
High Water			Salt Crust (B1			Drai	nage Patterns (B10)	
Saturation (/			Aquatic Invert			Dry-	Season Water Table	e (C2)
Water Marks	s (B1)		Hydrogen Sul			Satu	ıration Visible on Ae	rial Imagery (C9)
Ö 11 4 15	'' (DO)		Oxidized Rhiz	ospheres a	along Living			
Sediment De			Roots (C3)				morphic Position (D:	2)
Drift Deposit	ts (B3)		Presence of R			Shal	low Aquitard (D3)	
A1! A4 - !	0 1/04)		Recent Iron R	eduction ir	n Tilled			
Algal Mat or	Crust (B4)		Soils (C6)			FAC	-Neutral Test (D5)	
less Dansell	- (DC)		Stunted or Str	essed Plar	nts (D1)			
Iron Deposit			(LRR A)				ed Ant Mounds (D6)	
	Cracks (B6)		Other (Explain	in Remar	ks)	Fros	t-Heave Hummocks	(D7)
	isible on Aerial Imag							
Sparsely Ve	getated Concave Su	ırface (B8)						
Field Observat	ions:							
Surface Water F	Present? Yes	No X	Depth (inches):					
Water Table Pre	esent? Yes	No X	Depth (inches):		Wetl	land Hydrolo	gy Present? Ye	s No x
Saturation Pres	ent?	7 3			_		gy . 1000iii. 10	NO
(includes capilla	ary fringe) Yes	No X	Depth (inches):					
	ed Data (stream gau			e provious	inspections)	if available.	Decuievaly (April 20	10) 14110-411
saturation at -11 i	inches (A3) and red	ax starting at	-5.5 inches Redov	o, previous reimilar in	2021 - but sall	, ii available: I did not most	E6 color indicates	19) identified with ast 6 in. Redox layer
within requisite or	olor was only 2" thick	on oraning at	o.o mones. redox	commat th	ZUZ I, DUL SOII	did not meet	no color indicator p	asi o III. Redox layer
	orny z u iloi							
Remarks:								
		3						

Project/Site: 7928 SE 190 th Dr Ci	tv/County:	Gresham/Mult	nomah	Sampling Date: August 4, 2021
Applicant/Owner: Jim Leeper				Point: 2.1
Investigator(s): Jason Smith				
Landform (hillslope terrace etc.): Terrace	Loca	l relief (concav	e, convex, n	one): Concave Slope (%): <1%
Subregion (LRR): A La	at: 45 4655	56° Long:	-122.462	112° Datum: WGS84
Soil Map Unit Name: Powell silt Loam			NV	VI classification: NA
Are climatic / hydrologic conditions on the site typica	I for this time	of year? Yes	x No	(If no, explain in Remarks.)
Are Vegetation Soil V or Hydrology	x significa	antly disturbed	? Are "No	rmal Circumstances" present? Yes x No
Are Vegetation , Soil , or Hydrology	natural	v problematic	? (1	f needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	0 X			in a Wetland? Yes No _x
Hydric Soil Present? Yes N Wetland Hydrology Present? Yes N	o <u>x</u>			
Remarks: Historically, no wetland features are mapp	oed for this stu	dy area. Study	y area is histo or forage see	orically forested with conversion to pasture in the early ad blends with some invasive species infestation. Study
area plant community is affected by grazing and hay	ing.		J	
VEGETATION – Use scientific names of	f plants.			
VEGETATION - Use scientific flames of	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2.	-			Total Number of Dominant
3.				Species Across All Strata:2 (B)
4.				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:
1	8			
2				OBL species
3.				FACW species
4	(/ <u>=</u>			FAC species
5		T-1-1-0		FACU species
per a ser un		= Total Cove	er	UPL species x 5 =
Herb Stratum (Plot size: 5)	60	v	FAC*	Column Totals: (A) (B)
1. Holcus lanatus*	60	X	FAC*	Prevalence Index = B/A =
2. Schedonorus pratensis/arundinaceus	35 5	^	FACU	Trevalence mack Six
3. Anthoxanthum odoratum			FACU	Hydrophytic Vegetation Indicators:
4.				1 - Rapid Test for Hydrophytic Vegetation
5	-			2 - Dominance Test is >50%
6.				3 - Prevalence Index is ≤3.01
7				4 - Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9.				5 - Wetland Non-Vascular Plants ¹
10.	-			x Problematic Hydrophytic Vegetation ¹ (Explain)
11.	100	= Total Cove	or	¹ Indicators of hydric soil and wetland hydrology must
Weeds Vine Stratum (Plat size)	100	_ 10(21 00)		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)				
1.				
2		= Total Cov	er	Hydrophytic
W Born Cround in Horh Stratum 0		- Total COV		Vegetation Present? Yes Nox
% Bare Ground in Herb Stratum 0				1000111
	. L	talanaa	agorobio acii	conditions Schedonorus pratensis/arundinaceus
Remarks: Holcus lanatus and Alopecurus pratensi	each other in	the field - but	noth are ide	Utilied as low folerance for anaerobic son conditions. The
pasture grass plant community is dominant in the u	pland areas.	In accordance	with '87 Corp	Manual and Regional Supplement procedures, the
pasture grass plant community is identified as non-	hydrophytic fo	r this site.		

		to the dept	h peeded to docur	nent the ir	diontor or or	onfirm the a	bsence of indicators.	.)
Profile Des	Cription: (Describe		in needed to docum		idicator of co			•,
Depth (inches)	Color (moist)	%	Color (moist)	Redox Fe		1 - 2	.	
				%	_Type¹_	_Loc ² _	Texture	Remarks
8 – 0	5YR 3/3	_50	10YR 5/4	_1	_C		Silt loam	
8 – 0	10YR 4/3	_50	_10YR 5/4					
8 - 12	5YR 3/3	100	10YR 5/4	10	С	M		
								-
			? 					
								-
¹Type: C=C	oncentration, D=Dep	oletion. RM=	Reduced Matrix CS	=Covered	or Coated Sa	nd Grains	² Location: PL=Pore	Lining Manual
						oralis.	Location. PL-Pole	Liffing, IVI—IVIatrix.
	Indicators: (Appli	cable to all	LRRs, unless othe	rwise note	ed.)	India	cators for Problemati	ic Hydric Soils³:
Histoso		_	_ Sandy Redox (S			2	cm Muck (A10)	
	pipedon (A2) istic (A3)	_	Stripped Matrix (Loamy Mucky M		/oveent MI D		Red Parent Material (T	
Hydroge	en Sulfide (A4)	_	Loamy Gleyed M	fatrix (F2)	(except MLK		/ery Shallow Dark Sur Other (Explain in Rema	
	d Below Dark Surfac	ce (A11)	Depleted Matrix	(F3) ` ´		`	Suiter (Explaint in Reine	airo)
	ark Surface (A12)	_	Redox Dark Surf			3	Indicators of hydrophy	tic vegetation and
	Mucky Mineral (S1) Gleyed Matrix (S4)	_	 Depleted Dark S Redox Depression)	v	vetland hydrology mus	t be present,
	sidy da Midili X (O4)		Redox Depression	JIIS (F0)		u	nless disturbed or pro	blematic
estrictive La	yer (if present):							
Type:					Hydric Soi	I Present?	Yes	No x
Depth (inch								<u> </u>
narks:					J			
DROLOG	Y plogy Indicators:				l,			
DROLOG		e required; c	heck all that apply)		l,	Second	dary Indicators (2 or m	ore required)
DROLOG etland Hydro mary Indicat	Y plogy Indicators: ors (minimum of one	e required; c	Water-Stained			Wa	ter-Stained Leaves (B	
DROLOG etland Hydro mary Indicat Surface Wa	Y ology Indicators: ors (minimum of one ter (A1)	e required; c	Water-Stained MLRA 1, 2, 4	A, and 4B		Wa 4A ,	ter-Stained Leaves (B and 4B)	
DROLOG etland Hydro mary Indicat Surface Wa High Water Saturation (.	Y plogy Indicators: ors (minimum of one ter (A1) Table (A2) A3)	e required; c	Water-Stained MLRA 1, 2, 4 Salt Crust (B1	A , and 4B 11))	Wa 4A , Dra	ter-Stained Leaves (B and 4B) inage Patterns (B10)	9) (MLRA 1, 2,
DROLOG etland Hydromary Indicat Surface Wa High Water	Y plogy Indicators: ors (minimum of one ter (A1) Table (A2) A3)	e required; c	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul	A, and 4B 11) tebrates (B lfide Odor () (13) (C1)	Wa 4A, Dra Dry	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table	9) (MLRA 1, 2,
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark	Y cology Indicators: cors (minimum of one ter (A1) Table (A2) A3) s (B1)	e required; c	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz	A, and 4B 11) tebrates (B lfide Odor () (13) (C1)	Wa 4A, Dra Dry Sat	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri	9) (MLRA 1, 2, (C2) al Imagery (C9)
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark	Y cology Indicators: cors (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2)	e required; c	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3)	A, and 4B 11) tebrates (B lfide Odor (zospheres a) (C1) along Living	Wa 4A, Dra Dry Sat	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2	9) (MLRA 1, 2, (C2) al Imagery (C9)
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi	Y plogy Indicators: cors (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3)	e required; c	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F	A, and 4B 11) tebrates (B lfide Odor (zospheres a) (C1) along Living on (C4)	Wa 4A, Dra Dry Sat	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri	9) (MLRA 1, 2, (C2) al Imagery (C9)
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark	Y plogy Indicators: cors (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3)	e required; c	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6)	A, and 4B 11) tebrates (B lfide Odor (cospheres a Reduced Iro Reduction in	in 13) (C1) along Living on (C4) on Tilled	Wa 4A, Dra Dry Sat Geo Sha	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2	9) (MLRA 1, 2, (C2) al Imagery (C9)
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi	Y plogy Indicators: cors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3)	e required; c	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str	A, and 4B 11) tebrates (B lfide Odor (cospheres a Reduced Iro Reduction in	in 13) (C1) along Living on (C4) on Tilled	Wa 4A, Dra Dry Sat Gec Sha	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri pmorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5)	9) (MLRA 1, 2, (C2) (C3) (C9)
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposit Algal Mat or	Y plogy Indicators: cors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3)	e required; c	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 11) tebrates (B lfide Odor (cospheres a Reduced Iro Reduction in	installation (D1) installation (C4) installation (C4) installation (D1)	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) (al Imagery (C9))
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation (Y ology Indicators: ors (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) (s (B5) Cracks (B6) //sible on Aerial Image	gery (B7)	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str	A, and 4B 11) tebrates (B lfide Odor (cospheres a Reduced Iro Reduction in	installation (D1) installation (C4) installation (C4) installation (D1)	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri pmorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5)	9) (MLRA 1, 2, (C2) (al Imagery (C9))
DROLOG etland Hydromary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation (Y plogy Indicators: ors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) ts (B5) Cracks (B6)	gery (B7)	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 11) tebrates (B lfide Odor (cospheres a Reduced Iro Reduction in	installation (D1) installation (C4) installation (C4) installation (D1)	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) (al Imagery (C9))
DROLOG etland Hydro mary Indicat Surface Wa High Water Saturation (Water Mark: Sediment D Drift Deposi Algal Mat or Iron Deposit Surface Soil Inundation \ Sparsely Ve	yology Indicators: ors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) //isible on Aerial Imagetated Concave Su	gery (B7)	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 11) tebrates (B lfide Odor (cospheres a Reduced Iro Reduction in	installation (D1) installation (C4) installation (C4) installation (D1)	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) (al Imagery (C9))
DROLOG Petland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark: Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation \ Sparsely Ve	y pology Indicators: cors (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) //isible on Aerial Imagetated Concave Su	gery (B7) urface (B8)	Water-Stained MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 11) tebrates (B lfide Odor (cospheres a Reduced Iro Reduction in	installation (D1) installation (C4) installation (C4) installation (D1)	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) (al Imagery (C9))
DROLOG Petland Hydromary Indicate Surface Water Saturation (Water Marks Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation \ Sparsely Ve Id Observat face Water I	y pology Indicators: cors (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) //isible on Aerial Imagetated Concave Suctions: Present? Yesesent? Yesesest?	gery (B7) urface (B8)	Water-Stainer MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 11) tebrates (B Ifide Odor (cospheres a Reduced Iro Reduction in ressed Plan in Remar) i13) (C1) along Living on (C4) n Tilled ints (D1) ks)	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) ial Imagery (C9)) (LRR A) (D7)
DROLOG etland Hydro mary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation \ Sparsely Ve Id Observat face Water I ter Table Presuration Pres	yology Indicators: ors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) /isible on Aerial Image getated Concave Substitutes: Present? Yes esent? Yes ent?	gery (B7) urface (B8) No	Water-Stained MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 11) tebrates (B Ifide Odor (cospheres a Reduced Iro Reduction in ressed Plan in Remar) i13) (C1) along Living on (C4) n Tilled ints (D1) ks)	Wa 4A, Dra Dry Sat Geo Sha FAC	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
DROLOG etland Hydro mary Indicat Surface Wa High Water Saturation (Water Mark: Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation \ Sparsely Ve Id Observat face Water I ter Table Production Pres	yology Indicators: ors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) /isible on Aerial Imagetated Concave Suctions: Present? Yesesent? ery fringe) Yes	gery (B7) urface (B8) No No	Water-Stained MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches):	A, and 4B 11) tebrates (B Ifide Odor (cospheres a Reduced Iro Reduction in ressed Plan) i13) iC1) along Living on (C4) n Tilled ints (D1) ks) Wetl	Wa 4A, Dra Dry Sat Gec Sha FAC Rais Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) (al Imagery (C9)) (LRR A) (D7)
DROLOG etland Hydro mary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation (Sparsely Ve Id Observat face Water I ter Table Production Presidudes capillal cribe Recorde	yology Indicators: ors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) /isible on Aerial Imagetated Concave Suctions: Present? Yesesent? ery fringe) Yes	gery (B7) urface (B8) No 2 No 2	Water-Stained MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches): ng well, aerial photo	A, and 4B 11) tebrates (B Ifide Odor (cospheres a Reduced Iro Reduction in ressed Plan in Remar) i13) iC1) along Living on (C4) n Tilled ints (D1) ks) Wetl	Wa 4A, Dra Dry Sat Gec Sha FAC Rais Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) (al Imagery (C9)) (LRR A) (D7)
DROLOGitland Hydromary Indicate Surface Water Saturation (Water Market Sediment Dorift Deposit Surface Soil Inundation Not Sparsely Verside Water Indicated Water Indicated Water Indicated Water Indicated Water Indicated Sediment Openside Sediment	y cology Indicators: cors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) /isible on Aerial Imagetated Concave Substitutes Present? Yes esent? Yes ent? ary fringe) Yes ed Data (stream gau	gery (B7) urface (B8) No 2 No 2	Water-Stained MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches): ng well, aerial photo	A, and 4B 11) tebrates (B Ifide Odor (cospheres a Reduced Iro Reduction in ressed Plan in Remar) i13) iC1) along Living on (C4) n Tilled ints (D1) ks) Wetl	Wa 4A, Dra Dry Sat Gec Sha FAC Rais Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) (al Imagery (C9)) (LRR A) (D7)
DROLOG etland Hydro mary Indicat Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation (Sparsely Ve Id Observat face Water I ter Table Production Presidudes capillal cribe Recorde	y cology Indicators: cors (minimum of one) ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) is (B5) Cracks (B6) /isible on Aerial Imagetated Concave Substitutes Present? Yes esent? Yes ent? ary fringe) Yes ed Data (stream gau	gery (B7) urface (B8) No 2 No 2	Water-Stained MLRA 1, 2, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Roots (C3) Presence of F Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches): ng well, aerial photo	A, and 4B 11) tebrates (B Ifide Odor (cospheres a Reduced Iro Reduction in ressed Plan in Remar) i13) iC1) along Living on (C4) n Tilled ints (D1) ks) Wetl	Wa 4A, Dra Dry Sat Gec Sha FAC Rais Fros	ter-Stained Leaves (B and 4B) inage Patterns (B10) -Season Water Table uration Visible on Aeri omorphic Position (D2 allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) st-Heave Hummocks (9) (MLRA 1, 2, (C2) (al Imagery (C9)) (LRR A) (D7)

Project/Site: 7928 SE 190 th Dr	City/County:	Gresham/Mult	nomah	Sampling Date: August 4, 2021				
Applicant/Owner: Jim Leeper		State: OR						
Investigator(s): Jason Smith	Section, Tov	vnship, Range:	S25 T8S	R2W				
Landform (hillslope, terrace, etc.): Terrace	Loca	ıl relief (concav	e, convex, n	one): Concave Slope (%): <1%				
	at: 45.4654							
Soil Map Unit Name: Powell silt Loam				VI classification: NA				
Are climatic / hydrologic conditions on the site typic	al for this time	of vear? Yes	x No	(If no, explain in Remarks.)				
Are Vegetation \underline{x} , Soil \underline{x} , or Hydrology				ormal Circumstances" present? Yes _x No				
Are Vegetation, Soil, or Hydrology				If needed, explain any answers in Remarks.)				
Are vegetation , our , or rivatology		iy problemane.	,	,				
SUMMARY OF FINDINGS – Attach site	map show	ing samplir	na point le	ocations, transects, important features, etc.				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes Nox Hydric Soil Present? Yes Nox Is the Sampled Area within a Wetland? Yes Nox								
Remarks: Historically, no wetland features are map 1900's. Drainage affected by drain tiles. Study are area plant community is affected by grazing and ha	a plant commu	nity is typical fo	or forage see	orically forested with conversion to pasture in the early ed blends with some invasive species infestation. Study delineated Wetland 3.				
VEGETATION III.								
VEGETATION – Use scientific names of	Absolute	Dominant	Indicator	Dominance Test worksheet:				
<u>Tree Stratum</u> (Plot size:) 1	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)				
2.				Total Number of Dominant Species Across All Strata: 2 (B)				
3. 4.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)				
		= Total Cove	r					
Caslina/Chark Stretum (Plot size:	-	- Total Gove		Prevalence Index worksheet:				
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:				
1.				OBL species				
2.				FACW species				
3.				FAC species				
4				S				
5		= Total Cove	r	FACU species				
(District Company)	:	- Total Cove	'	UPL species x 5 =				
Herb Stratum (Plot size: 5)	60	X	FAC*	Column Totals: (A) (B)				
1. Holcus lanatus*	20	X	FAC*	Prevalence Index = B/A =				
2. Schedonorus pratensis/arundinaceus	10		FAC*	Trovalorios masic since				
3. Alopecurus pratensis	10		FACU	Hydrophytic Vegetation Indicators:				
4. Anthoxanthum odoratum			1 700	1 - Rapid Test for Hydrophytic Vegetation				
5.				2 - Dominance Test is >50%				
6.				3 - Prevalence Index is ≤3.0¹				
7				4 - Morphological Adaptations ¹ (Provide supporting				
8				data in Remarks or on a separate sheet)				
9				5 - Wetland Non-Vascular Plants ¹				
10.	·			x Problematic Hydrophytic Vegetation¹ (Explain)				
11.								
Woody Vine Stratum (Plot size:)	100	= Total Cove	·r	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
1								
2.	-	= Total Cove	NF.	Hydrophytic				
% Bare Ground in Herb Stratum 0	W	Total Cove		Vegetation Present? YesNo _x				
Remarks: Holcus lanatus and Alopecurus pratensi	is have ZFRO	olerance for ar	naerobic soil	conditions. Schedonorus pratensis/arundinaceus				
(tall/meadow fescue) are difficult to distinguish from	n each other in	the field - but	both are ider	ntified as low tolerance for anaerobic soil conditions. The				
pasture grass plant community is dominant in the upasture grass plant community is identified as non-	ıpland areas. 1	n accordance v	with '87 Corp	Manual and Regional Supplement procedures, the				

SOIL			Y				Sampling Poin	t: 3.1	
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix			Redox Fe	eatures			•	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ² _	Texture	Remarks	
8-0	7.5YR 4/3	_100					Silt Ioam		
8 – 12	10YR 4/3	95	10YR 5/4	5	С	M			
			10.111.01.1				·	7	
()	=====	-						-	
0									
:									
									
×									
¹Type: C=Co	oncentration, D=Dep	letion. RM=F	Reduced Matrix CS	=Covered	or Coated Sa	and Grains	² Location: PL=Pore	Lining M-Matrix	
						ina Orams.	Location. FL-Fore	Liffing, M-Manix.	
Hydric Soil	Indicators: (Applie	cable to all I	LRRs, unless other	rwise not	ed.)	Indi	icators for Problemat	ic Hydric Soils³:	
Histosol			_ Sandy Redox (S	5)			2 cm Muck (A10)		
	pipedon (A2)		Stripped Matrix (Red Parent Material (1		
	istic (A3)		Loamy Mucky Mi				Very Shallow Dark Sur		
	en Sulfide (A4) d Below Dark Surfac	- (A11) —	_ Loamy Gleyed M				Other (Explain in Rem	arks)	
	ark Surface (A12)	E (ATT)	Depleted Matrix (Redox Dark Surf				31 12		
	Mucky Mineral (S1)		Depleted Dark Si		7)		³ Indicators of hydrophy wetland hydrology mus	tic vegetation and	
	Gleyed Matrix (S4)	-	Redox Depression		,		unless disturbed or pro		
Restrictive La	yer (if present):								
Type:					Hydric So	il Present?	Yes	No x	
Depth (inch	nes):						7	20	
Remarks:									
	.,								
HYDROLOG									
Primary Indicat	ology Indicators: ors (minimum of one	required: ch	ack all that apply)			0	da (- d)		
1 mary maica	ora (minimant or one	required, cr	Water-Stainer	d Leaves	(R9) (except	Secon	idary Indicators (2 or m ater-Stained Leaves (E	ore required)	
Surface Wa	ter (A1)		MLRA 1, 2, 4				ater-Stained Leaves (E I, and 4B)	9) (WILKA 1, 2,	
High Water			Salt Crust (B1		-,		ainage Patterns (B10)		
Saturation (A3)		Aquatic Invert	tebrates (f			y-Season Water Table	(C2)	
Water Mark	s (B1)		Hydrogen Sul			Sa	ituration Visible on Aer	ial Imagery (C9)	
Sodiment D	anacita (P2)		Oxidized Rhiz	cospheres	along Living	_			
Drift Deposi	eposits (B2)		Roots (C3)	المماييمية الم	(04)		eomorphic Position (D2	2)	
Driit Deposi	13 (00)		Presence of F Recent Iron R			Sr	allow Aquitard (D3)		
Algal Mat or	Crust (B4)		Soils (C6)	Concion	iii Tilled	FΔ	C-Neutral Test (D5)		
	, ,		Stunted or Str	ressed Pla	ants (D1)	''	to recutal rest (Do)		
Iron Deposit	· ·		(LRR A)		` ,	Ra	ised Ant Mounds (D6)	(LRR A)	
	Cracks (B6)		Other (Explain	n in Rema	ırks)	Fro	ost-Heave Hummocks	(D7)	
	/isible on Aerial Imag								
Sparsely ve	egetated Concave Su	іпасе (ва)							
Field Observat	tions:								
Surface Water		No >	C Depth (inches):						
Water Table Pr			Depth (inches):	-	Wet	land Hydro	logy Present? Yes	. No v	
Saturation Pres			= ((-	'''		logy resont: 16:	No _x_	
(includes capilla			Depth (inches):						
Describe Record	ed Data (stream gau	ge, monitori	ng well, aerial photo	os, previou	us inspections), if available	: Previously identified	boundaries for	
Wetland 3 docum	nented with F6 Redo	x Dark surfa	ce (10YR 3/2 & 4/2)).			,	k!	
Remarks:									

Project/Site:7928 SE 190 th Dr C	itu/County	Greeham/Mull	nomah	Sampling Date: August 4, 2021
Applicant/Owner: Jim Leeper		State: OR		
Investigator(s): Jason Smith	Section, 10	wnsnip, Kange	323 103	ione): <u>Concave</u> Slope (%): <u><1%</u>
	LOC	116° Long:	-122 466	6180° Datum: WGS84
9 ()	45.4640	Long.		WI classification: NA
Soil Map Unit Name: Cascade silt Loam	l for this time	of your? Voc		
Are climatic / hydrologic conditions on the site typica	al for this time	oryear: res	2 Are "No	ormal Circumstances" present? Yes _x _ No
Are Vegetation x , Soil x , or Hydrology	X Signific	lly problematic	; ALC NO	If needed, explain any answers in Remarks.)
Are Vegetation , Soil , or Hydrology	паша	ily problematic	(in Hooded, explain any energe in the manage
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	0 <u>X</u>			in a Wetland? Yes No _x_
Hydric Soil Present? Wetland Hydrology Present? Yes x N Yes N	o _x_			
Remarks: Historically, no wetland features are mapped 1900's. Drainage affected by drain tiles. Study area area plant community is affected by grazing and has	a plant commi	idy area. Stud inity is typical f	y area is hist or forage see	orically forested with conversion to pasture in the early ed blends with some invasive species infestation. Study
area plant community is affected by grazing and ma	, mg.			
VECETATION Lies esignific names a	f nlante			
VEGETATION – Use scientific names of		Daminont	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Status	Number of Dominant Species
		openes.		That Are OBL, FACW, or FAC:0 (A)
1.				Total Number of Dominant
2				Species Across All Strata: 3 (B)
4.				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
				That Are OBL, FACW, of FAC (AID)
		= Total Cove	r	
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.				OBL species
3.				FACW species
4.				FAC species
5.				FACU species
		= Total Cove	r	UPL species x 5 =
Herb Stratum (Plot size: 5)				Column Totals: (A) (B)
1. Holcus lanatus*	20	X	FAC*	
2. Schedonorus pratensis/arundinaceus*	20	X	FAC*	Prevalence Index = B/A =
3. Anthoxanthum odoratum	60	X	FACU	
4.				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7				3 - Prevalence Index is ≤3.0¹
8				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹
10.				x Problematic Hydrophytic Vegetation¹ (Explain)
11,				
Woody Vine Stratum (Plot size:)	100	= Total Cove	er	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1				
2.				Hydrophytic
		_ = Total Cove	er	Vegetation
% Bare Ground in Herb Stratum0	_			Present? Yes No _x
Remarks: Holcus lanatus and Alopecurus pratensi	s have ZERO	tolerance for a	naerobic soil	conditions. Schedonorus pratensis/arundinaceus
(tall/meadow feecus) are difficult to distinguish from	reach other in	the field – but	both are idea	ntified as low tolerance for anaerobic soil conditions. The
pasture grass plant community is dominant in the u	piand areas. hydrophytic fo	in accordance or this site	with 87 Corp	o Manual and Regional Supplement procedures, the

SOIL							Sampling Poin	t: 5.1
Profile Desc	cription: (Describe	to the dept	h needed to docun	nent the i	ndicator or co	onfirm the al	sence of indicators	.)
Depth (inches)	Matrix		-0.1.7.1.0	Redox Fe				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4		_100_	_10YR 4/4	_5	_C	_M	Silt loam	
4 - 12	5YR 3/3	_100	_10YR 4/4	1	C	M		
					-	-		· — — · ·
-					-			(
-					-	-		();
·								
			·					
							(
¹Type: C=Co	oncentration, D=Dep	etion. RM=	Reduced Matrix CS	=Covered	or Coated Sa	and Grains	² Location: PL=Pore	Lining M-Matrix
1	Indicators: (Applic	able to all			ed.)	Indic	ators for Problemat	ic Hydric Soils³:
Histosol			_ Sandy Redox (S				cm Muck (A10)	
	pipedon (A2) istic (A3)	_	Stripped Matrix (Loamy Mucky Mi	S6) ineral (F1)	(except MI B		Red Parent Material (T /ery Shallow Dark Sur	
Hydroge	en Sulfide (A4)	_	Loamy Gleyed M				Other (Explain in Rem	
	d Below Dark Surfac	e (A11)	Depleted Matrix ((F3)				,
	ark Surface (A12) Mucky Mineral (S1)	_	_ Redox Dark Surf			3	Indicators of hydrophy	rtic vegetation and
	Gleyed Matrix (S4)		 Depleted Dark Search Redox Depression)		vetland hydrology mus inless disturbed or pro	
				,,,,,			iness distarbed or pro	DIEMAIIC
Restrictive La	yer (if present):							
Type:					Hydric So	il Present?	Yesx	No
Depth (inch	nes):			-				
Remarks:								
								W
HYDROLOG	Υ							
Wetland Hydro	ology Indicators:	Constitution (Cons						
Primary Indicat	ors (minimum of one	required; c			(00) (lary Indicators (2 or m	
Surface Wa	ter (A1)		Water-Stained MLRA 1, 2, 4	□ Leaves (Δ and 4F	(B9) (except		ter-Stained Leaves (E , and 4B)	89) (MLRA 1, 2,
High Water	Table (A2)		Salt Crust (B1		-,		inage Patterns (B10)	
Saturation (Aquatic Invert			Dry	-Season Water Table	
Water Mark	s (B1)		Hydrogen Sul			Sat	uration Visible on Aer	ial Imagery (C9)
Sediment D	eposits (B2)		Oxidized Rhiz Roots (C3)	ospneres	along Living	Ger	omorphic Position (D2))
Drift Deposi			Presence of F	Reduced Ir	ron (C4)		allow Aquitard (D3)	.)
Aleel Mask su	· O - · - + /D /)		Recent Iron R	deduction i	in Tilled			
Algal Mat or	Crust (b4)		Soils (C6) Stunted or Str	occod Dia	nte (D1)	FAC	C-Neutral Test (D5)	
Iron Deposit			(LRR A)	C33C4 1 16	ants (D1)	Rai	sed Ant Mounds (D6)	(LRR A)
	Cracks (B6)		Other (Explain	n in Rema	rks)		st-Heave Hummocks	
	Visible on Aerial Imag getated Concave Su							
Sparsely ve	getateu Concave St	mace (bo)						
Field Observat	tions:							
Surface Water I			X Depth (inches):					
Water Table Pro		No _:	X Depth (inches):	V	Wet	land Hydrold	ogy Present? Yes	8 No _x_
Saturation Pres (includes capilla		No. 3	X Depth (inches):					
				s previou	us inspections)	if available:	Previously identified	havadarias for
Wetland 3 docum	nented with F6 Redo	x Dark surfa	ce (10YR 3/2 & 4/2)	, previou	is irispections,	, ii avallable.	Previously identified	boundaries for
							98	
Remarks:								

Project/Site: 7928 SE 190 th Dr	City/County:	Gresham/Mul	tnomah	Sampling Date: July 11, 2021				
				Point: Wetland 1-A				
	Section, Tov							
				one): <u>Concave</u> Slope (%): <u><1%</u>				
				406° Datum: WGS84				
Soil Map Unit Name: Powell silt Loam				VI classification: NA				
Are climatic / hydrologic conditions on the site type								
Are Vegetation _x_ , Soil _x_ , or Hydrolog				ormal Circumstances" present? Yes _x No				
Are Vegetation, Soil, or Hydrolog				If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach sit	e map show	ng sampli	ng point le	ocations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes x No								
Remarks: Historically, no wetland features are ma	pped for this stu	dy area. Wetl	and features	appear to be an artifact of road construction and land e lowest point of the site – where the wetland occurs.				
Drainage is blocked by SE 190 th Drive, adjacent to	the wetland.	ncentrate proc	лрпацоп пт пт	d lowest point of the one				
VEGETATION – Use scientific names	of plants.							
VEGETATION COSTONIANO MEMBER	Absolute	Dominant	Indicator	Dominance Test worksheet:				
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)				
1.				Total Number of Dominant				
2.				Species Across All Strata: 4_ (B)				
3 4				Percent of Dominant Species				
				That Are OBL, FACW, or FAC:(A/B)				
		= Total Cove	er					
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:				
1				Total % Cover of: Multiply by:				
2.				OBL species				
3.				FACW species				
4.				FAC species				
5.0				FACU species				
	-	= Total Cove	er	UPL species x 5 =				
Herb Stratum (Plot size: 5250)				Column Totals: (A) (B)				
1. Holcus lanatus*	40*	X	FAC*					
2. Juncus effusus	20	Χ	FACW	Prevalence Index = B/A =				
Phalaris arundinacea	15	X	FACW	Hydrophytic Vegetation Indicators:				
4. Veronica americana	1		OBL					
5. Lotus corniculatus	15	X	FAC	1 - Rapid Test for Hydrophytic Vegetation				
6. Cirsium arvense			FAC	x 2 - Dominance Test is >50%				
7. Rumex crispus	10		FAC	3 - Prevalence Index is ≤3.0¹				
8				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
9				5 - Wetland Non-Vascular Plants ¹				
10				Problematic Hydrophytic Vegetation¹ (Explain)				
11.		- T-4-1 C-11		¹Indicators of hydric soil and wetland hydrology must				
(5)	100*	= Total Cove	er	be present, unless disturbed or problematic.				
Woody Vine Stratum (Plot size:)								
16								
2.		- Total Cov		Hydrophytic				
W Bara Casuad in Harb Charles 0		= Total Cov	5 1	Vegetation Present? Yes x No				
% Bare Ground in Herb Stratum0				1 TOSGIRE: 165 NO				
			l bao a milai	hum root donth of only 6 inches. In accordance with '97				
Remarks: Holcus lanatus has ZERO tolerance for Corp Manual and Regional Supplement procedur	r anaerobic soil es. <i>Holcus lanat</i>	conditions and us is identified	ı nas a mınım Las non-hvdro	ophytic for this site.				
Corp Ivianual and Regional Supplement procedur	oo, morous rariati	as is regulation	. 20	-F7				

Wetland 1

Profile Descr								
	iption: (Describe	to the dept	h needed to docum	ent the in	dicator or co	onfirm the a	Sampling Poir absence of indicators	nt: 1-A
Depth	Matrix	•		Redox Fea			aboution of intalographs	·· <i>)</i>
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
							TOALUTO	Prominent
0-16"	10YR 5/2	90	10YR 3/4	10	С	PL	Silt loam	redox
-							Ontrodin	TOUCK
								·
		-						
¹Type: C=Cor	centration, D=Dep	letion, RM=	Reduced Matrix, CS=	Covered	or Coated Sa	nd Grains.	² Location: PL=Pore	Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	cable to all	LRRs, unless other	wise note	:d.)	Ind	icators for Problemat	tic Hydric Soils ³ :
Histosol (Δ1)		Sandy Redox (S5	: \				
	pedon (A2)	_					2 cm Muck (A10)	
		_	_ Stripped Matrix (S		,		Red Parent Material (
Black His		_	Loamy Mucky Mir		(except MLR	· —	Very Shallow Dark Su	
	Sulfide (A4)	· —	_ Loamy Gleyed Ma				Other (Explain in Rem	arks)
	Below Dark Surfac	e (A11) _ <u>></u>	Depleted Matrix (
	k Surface (A12)	_	Redox Dark Surfa	ace (F6)			3Indicators of hydroph	vtic vegetation and
Sandy Mu	icky Mineral (S1)		Depleted Dark Su		1		wetland hydrology mu	
	eyed Matrix (S4)	_	Redox Depression				unless disturbed or pro	
	-,			110 (1 0)	1		unless disturbed or pro	
Restrictive Lay	or (if procent):				1			
_	er (ii present).							
Type:					Hydric So	il Present?	Yes x	No
Depth (inche	s):						0	
Remarks:								
HYDROLOGY Wetland Hydrol	ogy Indicators:							2 2
Wetland Hydrol	ogy Indicators:	e required; c	heck all that apply)				ndary Indicators (2 or n	
Wetland Hydrol Primary Indicato	ogy Indicators: rs (minimum of one	e required; c	Water-Stained			V	/ater-Stained Leaves (
Wetland Hydrol Primary Indicator Surface Wat	ogy Indicators: rs (minimum of one er (A1)	e required; c	Water-Stained MLRA 1, 2, 4	A, and 4B		V		
Wetland Hydrol Primary Indicator Surface Wat High Water	ogy Indicators: rs (minimum of one er (A1) Fable (A2)	e required; c	Water-Stained	A, and 4B		\\ 4	/ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrol Primary Indicato Surface Wat High Water - x Saturation (A	ogy Indicators: rs (minimum of one er (A1) Fable (A2)	erequired; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert	A, and 4B 1) ebrates (B	313)	W 4, D	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10	B9) (MLRA 1, 2 ,
Wetland Hydrol Primary Indicator Surface Wat High Water x Saturation (A	ogy Indicators: rs (minimum of one er (A1) Fable (A2)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert	A, and 4B 1) ebrates (B	313)	× D D	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrol Primary Indicator Surface Wat	ogy Indicators: rs (minimum of one er (A1) Fable (A2)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul	A, and 4B 1) ebrates (B fide Odor () 313) (C1)	× D D	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrol Primary Indicato Surface Wat High Water X Saturation (A Water Marks	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) e (B1)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz	A, and 4B 1) ebrates (B fide Odor o ospheres) 313) (C1)	W D D S	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hydrol Primary Indicato Surface Wat High Water X Saturation (A Water Marks Sediment De	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) s (B1) eposits (B2)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (A, and 4B 1) ebrates (B fide Odor of cospheres C3)) 313) (C1) along	X D D S:	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hydrol Primary Indicato Surface Wat High Water X Saturation (A Water Marks	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) s (B1) eposits (B2)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R	A, and 4B 1) ebrates (B fide Odor o ospheres C3) Reduced In) 313) (C1) along on (C4)	X D D S:	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Surface Wat High Water Saturation (A Water Marks Sediment De Drift Deposit	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R	A, and 4B 1) ebrates (B fide Odor o ospheres C3) Reduced In) 313) (C1) along on (C4)	W	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hydrol Primary Indicato Surface Wat High Water X Saturation (A Water Marks Sediment De	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6)	A, and 4B 1) ebrates (E fide Odor (cospheres C3) Reduced In eduction in	313) (C1) along on (C4) n Tilled	W	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) 6 (B1) eposits (B2) s (B3) Crust (B4)	e required; c	Water-Stainer MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str	A, and 4B 1) ebrates (E fide Odor (cospheres C3) Reduced In eduction in	313) (C1) along on (C4) n Tilled	W 4/2 D D S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water 1 X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) 6 (B1) eposits (B2) s (B3) Crust (B4) s (B5)	e required; c	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 4/2 D D S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3)	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water 1 X Saturation (/ Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) 6 (B1) eposits (B2) 5 (B3) Crust (B4) 6 (B5) Cracks (B6)		Water-Stainer MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water * X Saturation (/ Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Ima	agery (B7)	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water * X Saturation (/ Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) 6 (B1) eposits (B2) 5 (B3) Crust (B4) 6 (B5) Cracks (B6)	agery (B7)	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water * X Saturation (/ Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Ima	agery (B7)	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water T X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S	agery (B7)	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A)	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water T X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) r (B1) eposits (B2) rs (B3) Crust (B4) rs (B5) Cracks (B6) isible on Aerial Imagetated Concave S	agery (B7) urface (B8)	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water T X Saturation (/ Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg Field Observation Surface Water Pi	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes	agery (B7) urface (B8)	Water-Stained MLRA 1, 2, 4, 4 Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 44 X D D S S F R F F	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2) () (LRR A) 6 (D7)
Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposite Surface Soil Inundation V Sparsely Veg Field Observation Water Table Prese	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes sent? Yes	agery (B7) urface (B8)	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 1) debrates (B fide Odor opheres C3) Reduced Indeduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 44 X D D S S F R F F	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) brial Imagery (C9) 2)
Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg Field Observatio Surface Water Prese Saturation Prese	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes ent? Yes ent?	agery (B7) urface (B8) No	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 1) ebrates (E fide Odor (ospheres C3) Reduced In reduction in	313) (C1) along on (C4) n Tilled nts (D1)	W 44 X D D S S F R F F	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2) () (LRR A) 6 (D7)
Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg Field Observatio Surface Water Power Table Prese Saturation Prese (includes capillar	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes sent? Yes nt? y fringe) Yes	agery (B7) urface (B8) No No	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explair Depth (inches): Depth (inches):	A, and 4B 1) ebrates (E fide Odor cospheres C3) Reduced In eduction in ressed Pla in in Reman	B13) (C1) along on (C4) n Tilled nts (D1) rks) Wet	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2) () (LRR A) 6 (D7)
Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg Field Observatio Surface Water Power Table Prese Saturation Prese (includes capillar	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes sent? Yes nt? y fringe) Yes	agery (B7) urface (B8) No No	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explair Depth (inches): Depth (inches):	A, and 4B 1) ebrates (E fide Odor cospheres C3) Reduced In eduction in ressed Pla in in Reman	B13) (C1) along on (C4) n Tilled nts (D1) rks) Wet	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2) () (LRR A) 6 (D7)
Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg Field Observatio Surface Water Power Table Prese Saturation Prese (includes capillar	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes sent? Yes nt? y fringe) Yes	agery (B7) urface (B8) No No	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B 1) ebrates (E fide Odor cospheres C3) Reduced In eduction in ressed Pla in in Reman	B13) (C1) along on (C4) n Tilled nts (D1) rks) Wet	W 4/2	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2) () (LRR A) 6 (D7)
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Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg Field Observatio Surface Water Power Table Prese Saturation Prese (includes capillar escribe Recorded emarks: an artifice	ogy Indicators: rs (minimum of one er (A1) Fable (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes ent? Yes ent? Yes ont? y fringe) Yes d Data (stream gau	agery (B7) urface (B8) No No x No ge, monitori	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches): Depth (inches):	A, and 4B 1) ebrates (E fide Odor (cospheres C3) Reduced In reduction in ressed Pla a in Reman) 813) (C1) along on (C4) n Tilled nts (D1) rks) Wet	W 4/4 X D D S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks blogy Present? Ye	B9) (MLRA 1, 2,) e (C2) strial Imagery (C9) 2)) (LRR A) s (D7) s _x No
Wetland Hydrol Primary Indicator Surface Wat High Water X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Surface Soil Inundation V Sparsely Veg Field Observatio Surface Water Power Table Prese Saturation Prese (includes capillar escribe Recorded emarks: an artification of the control of the contr	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes ent? Yes ent? Yes ont? y fringe) Yes d Data (stream gau sial ditch was const	agery (B7) urface (B8) No No x No ge, monitori	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches): Depth (inches):	A, and 4B 1) ebrates (E fide Odor (cospheres C3) Reduced In reduction in ressed Pla a in Reman) 813) (C1) along on (C4) n Tilled nts (D1) rks) Wet	W 4/4 X D D S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks plogy Present? Ye	B9) (MLRA 1, 2,) e (C2) strial Imagery (C9) 2)) (LRR A) s (D7) s _x No
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Wetland Hydrol Primary Indicator Surface Wat High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposite Surface Soil Inundation V Sparsely Veg Field Observatio Surface Water Proposite Saturation Prese includes capillar escribe Recorded	ogy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Imagetated Concave S ens: resent? Yes ent? Yes ent? Yes ont? y fringe) Yes d Data (stream gau sial ditch was const	agery (B7) urface (B8) No No x No ge, monitori	Water-Stained MLRA 1, 2, 4, Salt Crust (B1 Aquatic Invert Hydrogen Sul' Oxidized Rhiz Living Roots (Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches): Depth (inches):	A, and 4B 1) ebrates (E fide Odor (cospheres C3) Reduced In reduction in ressed Pla a in Reman) 813) (C1) along on (C4) n Tilled nts (D1) rks) Wet	W 4/4 X D D S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10) ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 rost-Heave Hummocks blogy Present? Ye editch at SE 190th Dr	B9) (MLRA 1, 2,) e (C2) strial Imagery (C9) 2)) (LRR A) s (D7) s _x No

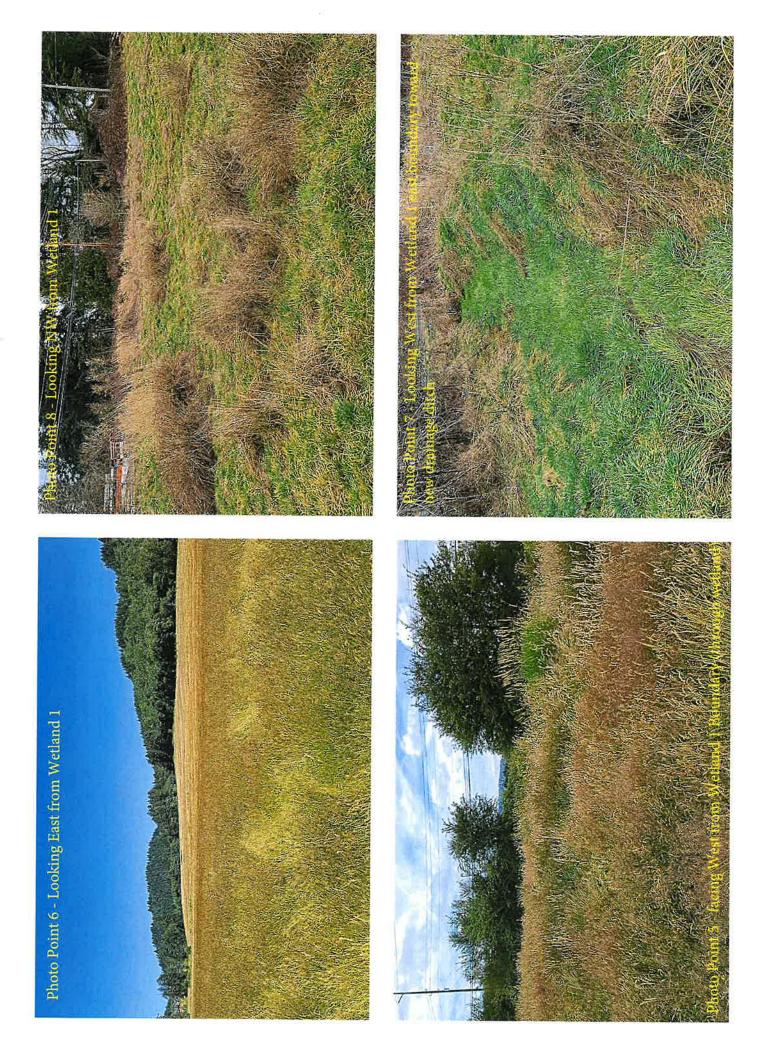
Project/Site: 7928 SE 190 th Dr City	//County:	Gresham/Muli	tnomah	Sampling Date: July 11, 2020
Applicant/Owner: Jim Leeper		state: OR		
		nship, Range	_	
Landform (hillslope, terrace, etc.): Terrace				one): Concave Slope (%): <1%
		36° Long:		
Soil Map Unit Name: Powell silt Loam				VI classification: NA
Are climatic / hydrologic conditions on the site typical	for this time of	of year? Yes	x No	(If no, explain in Remarks.)
Are Vegetation x Soil x , or Hydrology				ormal Circumstances" present? Yes x No
Are Vegetation , Soil , or Hydrology				If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site n	nap showi	ng sampli	ng point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes x No Hydric Soil Present? Yes x No Wetland Hydrology Present? Yes x No				in a Wetland? Yes <u>x</u> No
Remarks: Historically, no wetland features are mapped clearing to convert from forestry to agricultural use. Drainage is blocked by SE 190th Drive, adjacent to the	rain lines co	dy area. Wetti ncentrate pred	and features ipitation in th	appear to be an artifact of road construction and land e lowest point of the site – where the wetland occurs.
VEGETATION – Use scientific names of	nlants			
TECETATION - 036 Solution names of	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:) 1	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2				Total Number of Dominant Species Across All Strata:4 (B)
4.				Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
		= Total Cove		,
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.				OBL species
3,				FACW species
4.				FAC species
5.				FACU species
		= Total Cove	er	UPL species x 5 =
Herb Stratum (Plot size: 5250)				Column Totals: (A) (B)
1. Holcus lanatus*	40*	X	FAC*	
2. Juncus effusus	20	X	FACW	Prevalence Index = B/A =
3. Phalaris arundinacea	15	X	FACW	I I I I I I I I I I I I I I I I I I I
4. Veronica americana	1		OBL	Hydrophytic Vegetation Indicators:
5. Lotus corniculatus	15	X	FAC	1 - Rapid Test for Hydrophytic Vegetation
6. Cirsium arvense	1		FAC	x 2 - Dominance Test is >50%
7. Rumex crispus	10		FAC	3 - Prevalence Index is ≤3.01
8				4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹
10				Problematic Hydrophytic Vegetation¹ (Explain)
11.				
Woody Vine Stratum (Plot size:)	100	= Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1				
2.	-			Hydrophytic
	-	= Total Cove	er	Vegetation
% Bare Ground in Herb Stratum0	-:			Present? Yes x No
Remarks: Holcus lanatus has ZERO tolerance for ar Corp Manual and Regional Supplement procedures,	naerobic soil d Holcus lanati	conditions and	l has a minim as non-hydro	num root depth of only 6 inches. In accordance with '87 ophytic for this site.
Due to the small size, the entire wetland area is inclu	ded in the "pl	ot size" for ve	detation anal	vsis. Due to complexity of sampling around the fence,
those species at the fence separating the wetland fro	m the adjace	ur togaziae ai	ion are not in	ordined in the carculus, but typically represent i Ao.

Profile Desc							Sampling Poir	
Donth	Matrix	to the dept	n needed to docum	ent the inc	licator or o	confirm the a	bsence of indicators	i.)
Depth (inches)	Color (moist)	%	Color (moist)	Redox Fea %		1 222	T	D d
			Color (moist)		Type ¹	_Loc ² _	Texture	Remarks
0-16"	10YR 6/2	95	7.5YR 5/4	_5	_ <u>C</u>	_M	Silt loam	Distinct Redox
				=====3				0)
								77
	-						1.	8=
						-		
		·					(—————————————————————————————————————	:
Type: C=Co	oncentration, D=Dep	etion, RM=f	Reduced Matrix, CS=	Covered o	r Coated S	and Grains.	² Location: PL=Pore	Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all I	RRs. unless other	wise noted	1.)	Ind	icators for Problema	
Histosol		4510 to 411 t	Sandy Redox (S5		••,		2 cm Muck (A10)	iic Hydric Solls ;
	pipedon (A2)	_	Stripped Matrix (S				Red Parent Material (TF2)
Black Hi	istic (A3)		Loamy Mucky Mir	neral (F1) (except MLi	RA 1)	Very Shallow Dark Su	
Hydroge	en Sulfide (A4)	- (444)	Loamy Gleyed Ma	atrix (F2)	·	<i></i>	Other (Explain in Rem	
Depleted	d Below Dark Surfac ark Surface (A12)	e (A11) <u>x</u>	 Depleted Matrix (I Redox Dark Surfa 				3Indicators of budranh	utio voqetation and
Sandy N	lucky Mineral (S1)	_	_ Depleted Dark Su				³ Indicators of hydroph wetland hydrology mu	st be present.
Sandy G	Gleyed Matrix (S4)		_ Redox Depression	ns (F8)			unless disturbed or pr	
strictive La	yer (if present):							
Туре:					Hydric So	oil Present?	Yes x	No
Depth (inch	ies):							
	·							
etland Hydro	Y Dlogy Indicators: ors (minimum of one	required; cl	neck all that apply)			Secor	ndary Indicators (2 or r	nore required)
etland Hydro mary Indicat	ology Indicators: ors (minimum of one	required; ch	Water-Stained			: V	ndary Indicators (2 or r /ater-Stained Leaves (
etland Hydro mary Indicat Surface Wa	ology Indicators: ors (minimum of one ater (A1)	required; ch	Water-Stained MLRA 1, 2, 4	A, and 4B)		: V\ 4,	/ater-Stained Leaves(A, and 4B)	B9) (MLRA 1, 2,
etland Hydro mary Indicat Surface Wa High Water	ology Indicators: ors (minimum of one ater (A1) 'Table (A2)	required; ch	Water-Stained MLRA 1, 2, 4, Salt Crust (B1	A, and 4B) 1)		: W 4, _x D	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10	B9) (MLRA 1, 2,
etland Hydro mary Indicat Surface Wa High Water	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3)	required; cl	Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Invert	A, and 4B) 1) ebrates (B ²	13)	. W 4, D	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Tabl	B9) (MLRA 1, 2,) e (C2)
etland Hydro mary Indicat Surface Wa High Water Saturation Water Mark	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ks (B1)	required; cl	Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Invert Hydrogen Sult Oxidized Rhiz	A, and 4B) 1) ebrates (B ^r fide Odor (to ospheres a	13) C1)	. W 4, D	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10	B9) (MLRA 1, 2,) e (C2)
etland Hydro mary Indicat Surface Wa High Water Saturation Water Mark Sediment E	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	required; cl	Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Inverted Hydrogen Sult Oxidized Rhiz Living Roots (6)	A, and 4B) 1) ebrates (Bride Odor (ospheres acc)	13) C1) Ilong	X D D S G	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (D	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
etland Hydro mary Indicat Surface Wa High Water Saturation Water Mark	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	required; cl	Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Inverted Hydrogen Sulted Oxidized Rhize Living Roots (Comparison of Records)	A, and 4B) 1) ebrates (B' fide Odor (Gospheres acc3) deduced Iro	13) C1) Ilong	X D D S G	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
etland Hydro mary Indicat Surface Wa High Water Saturation Water Mark Sediment D	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	required; ch	Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Inverted Hydrogen Sulted Oxidized Rhize Living Roots (COUNT) Presence of Recent Iron Resoils (C6)	A, and 4B) 1) ebrates (B' fide Odor (Gospheres a C3) deduced Iro eduction in	13) C1) Ilong In (C4) Tilled	W 4/2	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (D	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Surface Wa High Water Saturation Water Mark Sediment Depose	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ss (B1) Deposits (B2) its (B3) or Crust (B4)	required; cl	Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Inverted Hydrogen Sulted Oxidized Rhize Living Roots (CON) Presence of Recent Iron Reconstruction Standard Construction Stand	A, and 4B) 1) ebrates (B' fide Odor (Gospheres a C3) deduced Iro eduction in	13) C1) Ilong In (C4) Tilled	- W - 4/ - X D - D - S - S - S	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Wa High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ss (B1) Deposits (B2) its (B3) or Crust (B4)	required; cl	Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Invert- Hydrogen Sult Oxidized Rhiz Living Roots (Invert- Presence of R Recent Iron R Soils (C6) Stunted or Stri (LRR A)	A, and 4B) 1) ebrates (B' fide Odor (Gospheres a C3) deduced Iro eduction in	13) C1) Iong In (C4) Tilled	. W 4,	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Wa High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Depos Surface So	ology Indicators: ors (minimum of one ater (A1) Table (A2) (A3) ss (B1) Deposits (B2) its (B3) or Crust (B4)		Water-Stained MLRA 1, 2, 4/ Salt Crust (B1 Aquatic Inverted Hydrogen Sulted Oxidized Rhize Living Roots (CON) Presence of Recent Iron Reconstruction Standard Construction Stand	A, and 4B) 1) ebrates (B' fide Odor (Gospheres a C3) deduced Iro eduction in	13) C1) Iong In (C4) Tilled	. W 4,	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
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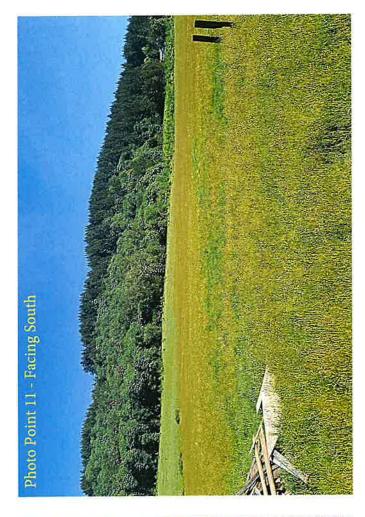
Project/Site: 7928 SE 190 th Dr	City/County:	Gresham/Mul	tnomah	Sampling Date: July 11, 2021
Applicant/Owner: Jim Leeper		State: OR		
Investigator(s): Jason Smith	Section, Tov	vnship, Range	S25 T8S	R2W
Landform (hillslope, terrace, etc.): Terrace	Loca	I relief (conca	ve, convex, n	one): Concave Slope (%): <1%
	Lat: 45.4648	00° Long:	-122.466	500° Datum: WGS84
Soil Map Unit Name: Powell silt Loam				VI classification: NA
Are climatic / hydrologic conditions on the site typi	cal for this time	of year? Yes	x No	(If no, explain in Remarks.)
Are Vegetation x , Soil x , or Hydrolog				rmal Circumstances" present? Yes x No
Are Vegetation , Soil , or Hydrolog	y naturali	ly problematic	? (I	lf needed, explain any answers in Remarks.)
				8 8 8 9
SUMMARY OF FINDINGS – Attach sit	e map show	ing sampli	ng point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes x	No			in a Wetland? Yes <u>x</u> No
Hydric Soil Present? Wetland Hydrology Present? Yes x Yes x	No			
Remarks: Historically, no wetland features are ma	pped for this stu	dy area. Wetl	and teatures	appear to be an artifact of road construction and land e lowest point of the site – where the wetland occurs.
Drainage is blocked by SE 190th Drive, adjacent to	the wetland.	ncentrate prec	apitation in th	C lowest point of the cite series are treated as
Brainage is blocked by the state of the				
VEGETATION III - a signalific memor	of plants			
VEGETATION – Use scientific names				Dominance Test worksheet:
The state of the s	Absolute % Cover	Dominant Species?	Indicator Status	Number of Dominant Species
Tree Stratum (Plot size:)		Species:	Olatus	That Are OBL, FACW, or FAC: (A)
1.				Total Number of Dominant
2.				Species Across All Strata:3 (B)
3				Percent of Dominant Species
4		-		That Are OBL, FACW, or FAC:67%_ (A/B)
	2	= Total Cove	er	
Sapling/Shrub Stratum (Plot size:)	/ <u>-</u>	10.0.0	<i>"</i>	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
1 2				OBL species
				FACW species
3. 4.				FAC species
5.		. = 10		FACU species
J.		= Total Cove	er	UPL species x 5 =
Herb Stratum (Plot size: 5250)				
1. Holcus lanatus*	40*	X	FAC*	Column Totals: (A) (B)
2. Juncus effusus	20	X	FACW	Prevalence Index = B/A =
3. Phalaris arundinacea	15	X	FACW	
Veronica americana	1		OBL	Hydrophytic Vegetation Indicators:
5. Lotus corniculatus	15	×	FAC	1 - Rapid Test for Hydrophytic Vegetation
6. Cirsium arvense	1		FAC	x 2 - Dominance Test is >50%
7. Rumex crispus	10		FAC	3 - Prevalence Index is ≤3.0¹
8.				4 - Morphological Adaptations ¹ (Provide supporting
9.				data in Remarks or on a separate sheet)
10,				5 - Wetland Non-Vascular Plants ¹
11,				Problematic Hydrophytic Vegetation¹ (Explain)
120	100	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1				
2.				Liveraphytic
5 -		= Total Cov	er	Hydrophytic Vegetation
% Bare Ground in Herb Stratum 0				Present? Yes x No
Remarks: Holcus lanatus has ZERO tolerance for	or anaerobic soil	conditions and	d has a minim	num root depth of only 6 inches. In accordance with '87
Corp Manual and Regional Supplement procedur	es, Holcus lanat	tus is identified	as non-hydr	ophytic for this site.

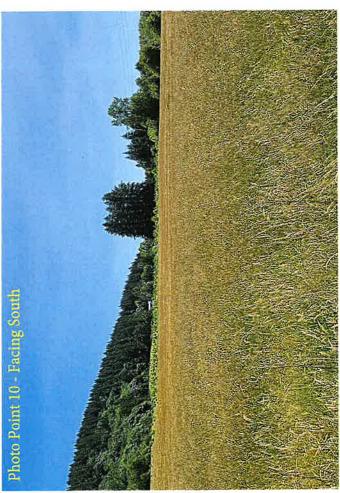
	Depth							Sampling Poi	nt: 1-C
Color (moist)		ription: (Describe	to the depth	needed to docum	ent the ind	icator or co	nfirm the ab	sence of indicators	s.)
Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M	(mones)		0/				. 2	- .	
Deplet Concentration Depletion RM=Reduced Matrix CS=Covered or Coated Sand Grains Coated Grains Coated Sand Grains Coated Grains		_Color (moist)		Color (moist)	%	Type ¹	_Loc2	Texture	Remarks
"Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	0-16"	10YR 5/2	85	10YR 3/4	15	C	DI /M	Silt loam	Prominent
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histicsosi (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Redox (S5) Black Histic (A3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (B1) Depleted Dark Surface (F5) Redox Dark Surface (F7) Sandy Gleyed Matrix (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Redox Depressions (F8) Petractic Layer (if present): Type: Depth (inches): Burface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Sediment Deposits (B2) Diff Deposits (B3) Agaid Mat or Crust (B4) Algal Mat or Crust (B4) Algal Mat or Crust (B4) Surface Soil Cracks (B6) Incundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Present? Yes No Depth (inches): Brook A Depth (inches): Wetland Hydrology Indicators (2 or more required; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLR 4A, and 4B) A Daringe Patterns (B10) Dry-Season Water Table (C2) Saturation (A3) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation (Nisible on Aerial Imagery (B7) Surface Water Arsk (B4) Algal Mat or Crust (B4) Algal Mat or Crust (B4) Constitution of Surface (B8) Constitution Remarks) Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches):				10111 014			_ <u> </u>	Silt ioam	redox
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Redox (B12) Sandy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (B1) Depleted Dark Surface (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (B1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (B1) Depleted Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Persenticitive Layer (if present): Type: Depth (inches): Depth (inches): Mark (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Sediment Deposits (B2) Diff Deposits (B3) Agal Mat or Crust (B4) Algal Mat or Crust (B4) Algal Mat or Crust (B4) Algal Mat or Crust (B4) For Surface Water (A8) Algal Mat or Crust (B4) For Surface Water (B4) Algal Mat or Crust (B4) For Surface Water (B4) Algal Mat or Crust (B4) For Surface Water (B4) Algal Mat or Crust (B4) For Surface Water (B4) Algal Mat or Crust (B4) For Surface Water Present? For Surface Water (B4) Algal Mat or Crust (B4) For Surface Water (B4) Current (B4) Cur			<u> </u>						-
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cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Sediment D Drift Deposi Algal Mat or Iron Deposit Surface Soil Inundation \ Sparsely Ve eld Observati Irface Water P ater Table Presetturation Preset	its (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial Imaegetated Concave Sinces: Present? Yesesent? Yesent?	urface (B8)	Oxidized Rhiz Living Roots (i Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain	ospheres ald C3) educed Iron eduction in ^c essed Plants	ef) cong a (C4) Tilled s (D1)	Dry-Satu Geo Sha FAC Rais Fros	ration Visible on Aemorphic Position (Dallow Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) t-Heave Hummocks	e (C2) rial Imagery (C9) 2)) (LRR A) 5 (D7)
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arks: an artificial ditch was constructed circa 2017 to drain the wetland area to the additional to the second of	Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation N Sparsely Ve Ild Observati rface Water Pater Table Presecturation Presectudes capillar	its (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial Imagetated Concave Sions: Present? Yesesent? Yesent? ry fringe) Yes	urface (B8) No _x No _x	Oxidized Rhiz Living Roots (i Presence of R Recent Iron R Soils (C6) Stunted or Stri (LRR A) Other (Explain Depth (inches): Depth (inches):	ospheres ald C3) educed Iron eduction in essed Plants in Remarks	ef) cong in (C4) Tilled is (D1) is) Wetl	Geo Sha FAC Rais Fros	ration Visible on Aemorphic Position (Dallow Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) t-Heave Hummocks	e (C2) rial Imagery (C9) 2)) (LRR A) 5 (D7)
arks: an artificial ditch was constructed circa 2017 to drain the wetland area to the adjacent roadside ditch at SE 190th Dr (no ditch in 17 on aerial imagery). The ditch was flowing in January 2021. Upland areas are tiled, with at least three drain tiles concentrating at	Sediment D Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation \ Sparsely Ve eld Observation frace Water Peter Table Preturation Presecutes capillar	its (B3) r Crust (B4) Its (B5) I Cracks (B6) Visible on Aerial Imagetated Concave Sions: Present? Yes eart? ry fringe) Yes and Data (stream gau	wrface (B8) No x No x No ge, monitorin	Oxidized Rhiz Living Roots (I Presence of R Recent Iron R Soils (C6) Stunted or Str (LRR A) Other (Explain Depth (inches): Depth (inches): g well, aerial photos	ospheres ald C3) educed Iron eduction in essed Plants in Remarks 6 s, previous in	wetl	Geo Sha FAC Rais Fros	ration Visible on Aemorphic Position (Dilow Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) t-Heave Hummocks	e (C2) erial Imagery (C9) (C9) (C9) (C9) (C9) (C9) (C9) (C9)
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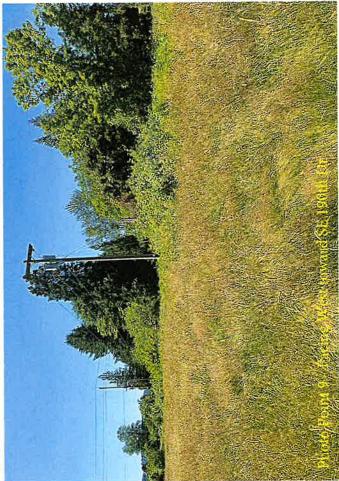
Appendix C Photos



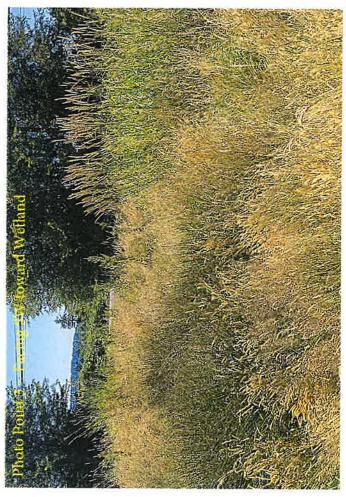


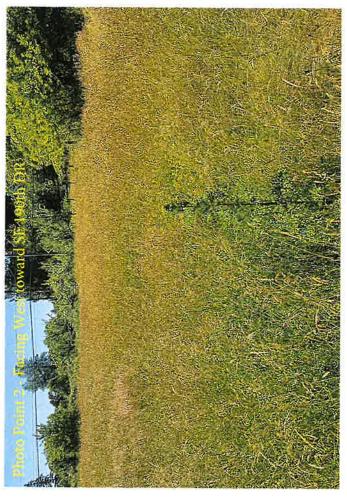


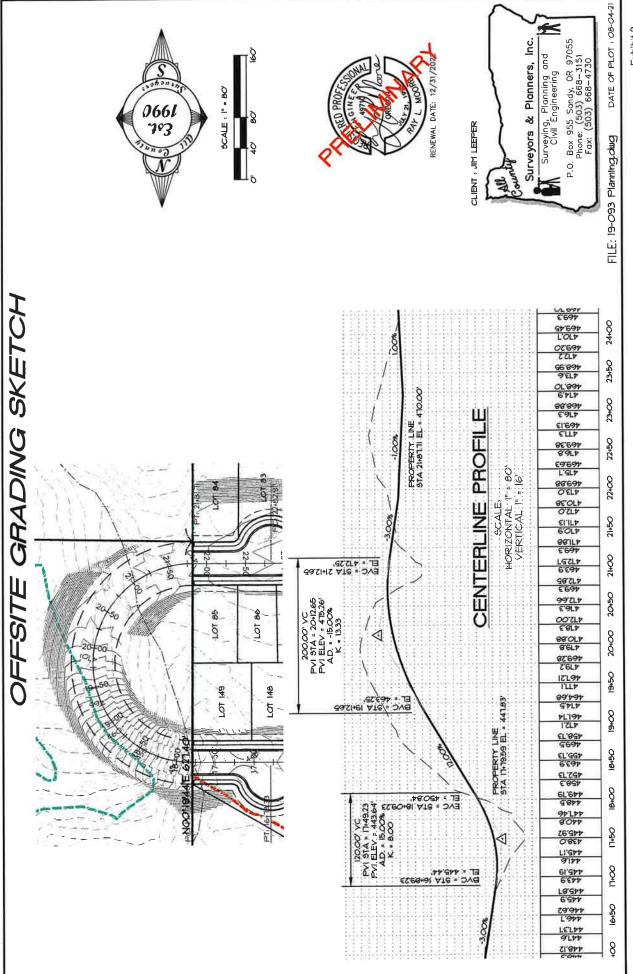












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