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#### **Gary Shepherd, Senior Assistant Attorney**

April 22, 2022

Kevin Cook, Senior Planner Multnomah County Land Use Planning Division 1600 SE 190th Avenue Portland, OR 97233

> RE: Metro's North Tualatin Mountains Case #T4-2017-9166 – Comprehensive Plan Text Amendment Case #T3-2017-9165 – Use Application **Response to Request for Additional Information**

Dear Mr. Cook:

This letter and attached exhibits constitute Metro's response to the County's request for additional information, dated February 26, 2021. Below is a response to each item identified in the County's email.

- Exhibit 1 PGE utility line plan sheet
- Exhibit 2 Wetland delineation/determination form and report and ordinary high water mark/line delineation report
- Exhibit 3 Preliminary erosion control and sediment protection plan
- Exhibit 4 Revised site plan depicting the request traffic direction markings
- Exhibit 5 Site Plan for vision clearance (monument sign)
- Exhibit 6 Mitigation plan

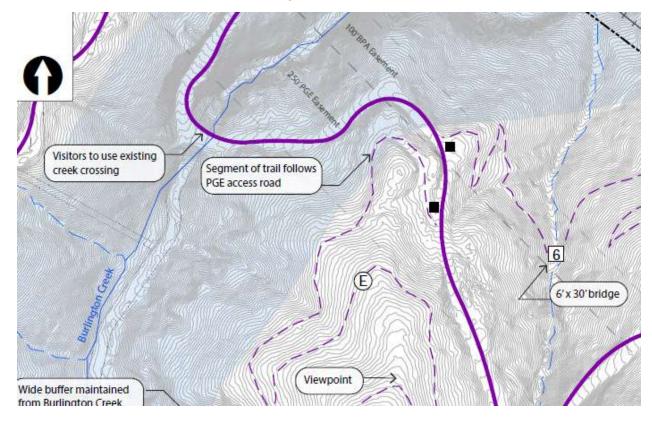
**Issue #1.** I am looking for more specifics on the amount of tree clearing needed for trails so that I can provide this information within staff findings to approval criteria related to this topic. The application mentions 0.05 acres of clearing for parking areas. For trails there is an indication that trails will be aligned to go around trees. The geotech report provides descriptions of new trail segments, which list the trail lengths and in most cases the trail widths. In trying to use those numbers to guess at a possible amount of clearing I come up with possibly a few acres of clearing – but I don't have a clear picture how many trees would be either preserved or removed for the new trails.

Similarly, it appears I have found a discrepancy in the overall length of new trails proposed. The narrative indicates the addition of 6 miles of new trail while the geotech report new trail lengths add up to over 12 miles. It appears that the geotech report may provide a more specific calculation of trail lengths that account for the 'twist and turns' as opposed to more generalized straight line distances.

Can you clarify the amount of clearing needed for the trails as well as the length and width of all proposed trails?

<u>RESPONSE</u>: First, addressing the ambiguity/confusion over trail lengths proposed; the total length of proposed *new* trails is currently 5.6 miles based on GIS alignments. The GIS trail files also include the line work for 2.3 miles of *existing* forest practice roads, which will remain open to visitors to walk and ride their bike or horse (for a total of approximately 8 trail miles). With respect to the tree clearing aspect of the question, applicant assumes this question relates to the SEC mitigation/revegetation ratio. The subject property includes SEC-h (wildlife habitat) and SEC-s (streams) overlays, which unless exempt from SEC permit standards, require a level of mitigation to offset proposed disturbances.

While the property is classified generally as SEC-h (wildlife habitat), there is only one code regulated SEC "protected stream" on the subject use application property, Burlington Creek. No new bridges or trails are proposed to cross Burlington Creek. The SEC-s "stream conservation area" includes a 300' buffer from Burlington Creek's centerline. One short segment of approximately 125 feet of new trail located on the ridge approximately 134 feet in elevation above the creek skirts along the edge of the overlay buffer, and when measured along the ground and down the slope (not by the way the crow flies), it is planned to be outside the buffer. Furthermore, this section of trail alignment follows an existing PGE maintenance access route and thus does not impact habitat area.



30% Trail Alignment and SEC-s Buffer

The SEC buffer in the graphic above is drawn at 328' from Burlington Creek as measured along the slope. There is no impact to the SEC-s resource requiring mitigation.

As provided for in Metro's application and also discussed in a response to a request for additional clarifications dated August 27, 2018, applicant approaches the response to SEC permit criteria in two alternative ways.

First, applicant demonstrates that recreational improvements, and at a minimum the trails (including bridge crossings), are exempt from the SEC permit and mitigation standards. Please see the application narrative submission for a response to § 33.4515 Exceptions. Section 33.4515(A) provides that activities to protect, conserve, enhance, and maintain public recreation and natural uses on public lands are exempt from SEC permits. Public recreational uses already occur on the site. The proposal is to develop formal access improvements and new trails to enhance and maintain public recreational and natural area uses, as well as to control and direct user access to protect and conserve the natural resources; thereby meeting the exemption standard.

Please note, in support of the exemption analysis, applicant offers the following: SEC-h permit and Wildlife Conservation Plan standards limit newly cleared area disturbance associated with development to 1 acre. § 33.4570(A)(3)(b) and (5)(b). Generally speaking, recreational and natural area improvements in a forested setting, particularly when initially being constructed, would often exceed 1 acre of cleared areas. Depending on the level of clearing proposed, if recreational and natural area improvements are not determined to be exempt, the County would be prohibiting public recreational projects from being constructed in a forested setting. For example, that conclusion would have prohibited Oxbow Regional Park, whose lawful and legal existence was recently reconfirmed in T3-2015-3903, from being developed.

If applicant's proposed use is not exempt from the SEC standards, alternatively, applicant demonstrates compliance with SEC permit standards through the required Wildlife Conservation Plan worksheets and proposed revegetation of existing cleared areas on the property at a 2:1 ratio (to mitigate for "clearing" – areas which go from a "forested area" to a "non-forested area").

Tree removal for proposed recreational and natural area improvements, specifically the number of trees proposed for removal, is not a relevant issue for two reasons. 1) Tree removal for recreational and natural area improvements is exempt from SEC standards, and 2) Tree removal and the number of trees removed is only considered when the activity is not exempt and an applicant is proposing to mitigate for disturbances pursuant to SEC, Wildlife Conservation Plan standards subsection (C)(4) or (C)(5), instead of (C)(3). Although applicant is of the opinion that the proposed use is exempt from SEC permit standards and mitigation requirements, in the alternative, applicant provides a Conservation Plan and mitigation plan that satisfies the standards of (C)(3).

The total length of proposed *new* trails is currently 5.6 miles based on GIS alignments. The GIS trail files also include the linework for 2.3 miles of *existing* forest practice roads which

will remain open to visitors to walk and ride their bike or horse (for a total of approximately 8 trail miles). No changes to the road are anticipated. During trail construction, the new trail mileage may increase by 10% to account for meander as needed to avoid natural obstacles, such as trees. Metro expects the final *new* trail length to be approximately six miles. Proposed trail lengths, widths and impact area are as follows:

	Trail Width		Trail impact	
Trail	(inches)	Trail length (If)	area (sf)	Trail length (mi)
А	42	5,082	17,787	1.0
В	30	1,162	2,905	0.2
С	24	679	1,358	0.1
D	36	4,845	14,535	0.9
E	30	6,073	15,183	1.2
F	30	2,597	6,493	0.5
G	30	6,081	15,203	1.2
н	24	3,015	6,030	0.6
		29,534	79,493	5.6
			1.8	Total acres of trail impact

30% Design Trail Impact Calculations

For the recreational and natural area improvements, Metro is proposing ground disturbances totaling 1.86 acres: constituting 0.05 acres for the parking area (parking area is proposed in an already cleared area where 12 trees are proposed to be removed); 1.8 acres for trails; and 400 sf of bridge abutments. Only the disturbance adjacent to the parking area meets the definition of "clearing," requiring mitigation.

The activity of "clearing" (going from a "forested area" to a "non-forest area" as defined in § 33.4570(A) for example) is regulated by SEC permit standards, and requires mitigation at a 2:1 ratio. Ground disturbances per se, do not always equate with or meet the definition of "clearing." For example, when a trail is constructed (as is proposed), the area is not cleared of trees, but rather remains a "forest area" as defined in § 33.4570(A)(1). Trail construction consists of ground grubbing and surface preparation with trails going around existing trees, unless impracticable. The number of trees that may be removed along a length of trail depends on the density of the forest and desired trail design parameters, including desired slope and width. The timber plantation at Burlington Creek Forest has been thinned to resemble a natural forest density. Such a scenario minimizes the amount of trees potentially needing to be removed for trail construction. Forest edges, such as near the existing road, may have greater tree and shrub density due to light availability. At each trail road intersection, the removal of up to two small trees may be assumed. Larger trees found on site, carry greater ecological value, and would be prioritized to be left in place.

Although applicant's proposal is exempt from SEC mitigation requirements, applicant's mitigation planting plan depicts the required level of planting to mitigate for the parking area disturbance. The remainder of applicant's activities is not converting a forested area into a non-forested area, and thus does not constitute "clearing" requiring mitigation.

Please note, applicant's final plans submitted for review and approval will depict the precise square feet of disturbance and, if required, the resulting 2:1 revegetation area to mitigate for disturbances. Applicant has presented preliminary plans for land use review. Following the decision, those preliminary plans will be further defined and developed into final construction plans, which will be substantially consistent with that which is preliminarily proposed. As is normal and customary, those final designs will result in more certainty, including final calculations for disturbance areas that may require mitigation. At that time, applicant's required final mitigation plan will reflect those numbers.

Although applicant has established that the proposed use is exempt from SEC standards, if the County determines applicant's proposed use is not exempt from the SEC standards, applicant requests a condition of approval to ensure compliance with the 2:1 revegetation standard, with the County determining and delineating the areas of "clearing" that require mitigation. Applicant's final construction plans, including the final mitigation plan, would then address and comply with that condition, thereby satisfying the standard.

**Issue #2.** At page 72 of your T3 application narrative you indicate no proposed cuts or fills for the trails. However, the Geotech report at Section 5.11 advises on how cuts and fills for trails should be handled. Please clarify if cuts or fills will be required for the trails, and please provide any information you might have as to where these activities might occur. Also, will cuts and fills for trails will be done by hand or with mechanized equipment?

## **RESPONSE:**

Pages 72 and 73 of the application narrative states there are four areas that will require fills or grading. Applicant has not located the reference that there will be no proposed cuts or fills for the trails. Any statement or suggestion as such would have been a clerical error.

Full bench construction is anticipated for the trails at Burlington Creek Forest. While this process requires some soil excavation and dispersal, no import or export of material is anticipated. Excavation is limited to that required to establish the trail. All excavated material will be broadcast locally on site as is customary in trail construction. Trail construction is expected to utilize small mechanized equipment as well as hand tools. The geotechnical report at section 4.2.2 confirms that the proposed trails will include minimal cutting to achieve finished grades.

The design presented implements the recommendations of independent geotechnical experts to ensure the proposed improvements are compatible with site conditions. As indicated in the geotechnical report, existing vegetation, soils, etc. will be removed from within and for approximately a 5-foot margin around proposed building, pavement, and

bridge abutments. Where needed, for example around the bridge abutments, sediment control fencing, construction fencing, and staging areas will be utilized to control and direct activities and prevent adverse impacts. Standard construction management best practices will be employed and documented in erosion control and sediment protection plans and notes.

Applicant is not requesting a grading and erosion control permit at this time. As such, pursuant to MCC 33.5520, applicant requests conditions of approval be imposed to ensure that a grading and erosion control permit is obtained and the design meets the applicable standards prior to ground disturbing activities.

**Issue #3.** Metro has indicated that the entry gate will be motorized, but has also indicated no electricity is proposed for the sight. Can you confirm the power source for the gate? You have already indicated the security light would be solar power, is this also true for the entry gate and the restroom light?

## **RESPONSE:**

Since the original application submission, solar was not found to be an adequate power source for the automated gate. Thus, power lines will be brought to the site. Attached plans from Portland General Electric indicate power will be brought to the site from NW Wapato Avenue. Lines will run underground, including under the rail line. Exhibit 1. PGE will coordinate the utility easement within the right-of-way. Lighting will be connected to the same power source. Appropriate and needed right of way permits will be obtained to support utility installation. The need to obtain said permits can be made a condition of approval to ensure compliance.

**Issue #4.** Because stream crossings are proposed, a mitigation plan, as referenced below in subsection 2, is required. Please submit this mitigation plan as soon as possible, and let me know if you have any questions as you review the mitigation plan requirements.

## MCC 33.5520 (A) (2)

(e) Whenever feasible, natural vegetation shall be retained, protected, and supplemented;

1. A 100-foot undisturbed buffer of natural vegetation shall be retained from the top of the bank of a stream, or from the ordinary high watermark (line of vegetation) of a water body, or within 100-feet of a wetland;

2. The buffer required in 1. may only be disturbed upon the approval of a mitigation plan which utilizes erosion and stormwater control features designed to perform as effectively as those prescribed in the currently adopted edition of the "Erosion Prevention & Sediment Control Plans Technical Guidance Handbook (1994)" and the "City of Portland Stormwater Quality Facilities, A Design Guidance Manual (1995)" and which is consistent with attaining

# equivalent surface water quality standards as those established for the Tualatin River Drainage Basin in OAR 340;

## **RESPONSE:**

Since the original submission, applicant's professional consultant performed a wetland delineation/determination and identified the ordinary high water marks associated with the proposed bridge crossings. Attached as Exhibit 2 is their Wetland Delineation/Determination Report form submitted to the Oregon Department of State Lands as well as their Ordinary High Water Mark/Line Delineation Report. This information will be used to ensure that all abutment disturbances are located above and outside of the ordinary high water mark.

The above issue references Erosion and Grading Control standards for hillside development, specifically, when entering into a waterbodies buffer. The mitigation plan required above is distinct and different from required mitigation (and the mitigation plan) required under SEC permit standards. Unlike the SEC permit standards, the Erosion and Grading Control "mitigation plan" standards do not require a specific ratio of plantings in existing cleared areas to offset the disturbance with the buffer. Rather, the standards required a grading and erosion control plan, to the extent applicable, to "utilize erosion and stormwater control features designed to perform as effectively as those prescribed in the currently adopted edition of the "Erosion Prevention & Sediment Control Plans Technical Guidance Handbook (1994)" and the "City of Portland Stormwater Quality Facilities, A Design Guidance Manual (1995)" and which is consistent with attaining equivalent surface water quality standards as those established for the Tualatin River Drainage Basin in OAR 340." Those are construction management best practices standards which are reflected in erosion and grading control plans, to the extent the standards are applicable. Implementing those best practices is the mitigation required.

Applicant provided preliminary grading and erosion control plans depicting information required for the access and parking area. As requested by the County, attached as Exhibit 3 are additional preliminary construction management plans, erosion control best practices that will be utilized for all bridge abutments and trail construction within the buffer.

As per normal County protocol and process, applicant is not requesting a grading and erosion control permit at this time. Applicant has required a condition of approval be imposed to ensure that a grading and erosion control permit is obtained and the design meets the applicable standards prior to ground disturbing activities.

*Issue #5.* Is Metro proposing to mark the traffic directions for the driveway and parking area? If so, can you add those details to a site plan?

## **RESPONSE:**

Attached as Exhibit 4 is a revised site plan depicting the requested traffic direction markings. This amends Exhibit 20, sheet 4 of the original submission. The parking area is served by and takes access to and from NW McNamee Road, an improved public street. The proposed access drive is not less than 20 feet in width and allows for two way traffic. Additionally, this standard can be made a condition of approval to ensure compliance.

**Issue #6.** Metro has requested a condition of approval to allow the applicant to seek permission to use gravel in the parking area – see MCC 33.4180 (A). I need your help addressing the standards in MCC 33.4180 (2) if you would like to request that the county impose a condition of approval allowing Metro to decide later between full pavement or some combination of pavement and gravel. In other words I think we can recommend the condition as long as you have satisfied MCC 33.4180 (A) (1) and alternatively (A) (2).

## **RESPONSE:**

Metro apologizes for the confusion created by its responses to subsections (A)(1) and (2). Currently, the plans represent a paved surface for the access road and parking area, thereby satisfying the surface requirement of (A)(1). However, the standards also permit an applicant to request a deviation from a paved surface, namely gravel. While at this time applicant is not intending to use gravel for the access drive and parking area, when the project is finally designed for construction permitting purposes and final county review, applicant would like the opportunity/the option to employ gravel over a portion of the access drive and parking area. Please note, if gravel was proposed in final plans, applicant understands that a paved apron approach would be required for a portion of the access drive. As suggested above, a condition of approval that applicant comply with the surfacing standards in subsection (A)(1) or alternatively (A)(2) would ensure compliance.

**Issue #7.** In addressing MCC 33.4210 (Minimum Required Off-Street Loading Space) I want to make sure I am capturing Metro's intent with respect to loading spaces. As I understand it the proposed trails and restroom building do not require a loading space and when on site, Metro vehicles will likely either use an available open parking space or will park as needed on the existing logging road trail by way of accessing the proposed gate at separating the parking area from the trailhead. Do I have that right? Also, can you provide any information about the anticipated frequency of Metro vehicles and/or contractors needing to use the parking area?

## **RESPONSE:**

You are correct. Metro staff visiting the site as part of standard operations or for land management needs would use any open parking space or park along the forest practices road. Metro staff will be visiting the site as operational demands dictate, which is

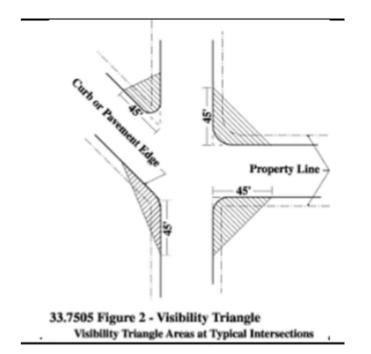
anticipated to be a couple of times per week during high use season, and less during the winter months. Metro will also be accessing the site periodically as land and forest management needs arise, as it does currently.

No loading/unloading within the parking area is needed to support or serve the proposed use.

**Item #8.** Regarding 33.7465 (Sign Placement), I believe that the monument sign at the entry may actually be proposed in the vision clearance area (a prohibited area), though the twisty shape of the driveway and the curve of the road make a somewhat difficult to measure. Can you provide a sight plan showing how the monument sign will be located outside the vision clearance area?

## **RESPONSE:**

Metro does not propose or intend to locate the monument sign within the vision clearance area. Any representation of such in the preliminary plans is in error. We understand the clear vision area you are concerned about is the distance the sign is set back from the road surface edges to allow clear vision in both directions, as required by Figure 2 below.

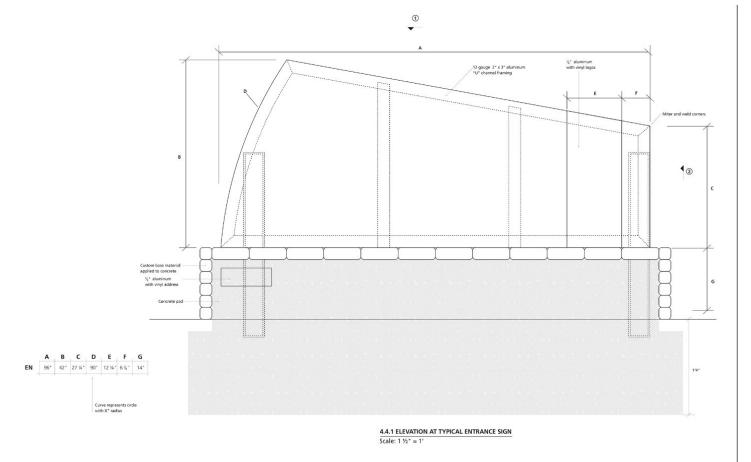


Attached as Exhibit 5 is a site plan depicting the proposed sign with reference to the vision clearance area triangle required by 33.7465 (C). Applicant requests that the standard of 33.7465(C) be made a condition of approval to ensure compliance.

*Issue #9.* Can you also provide more detail on the sign face measurements? I need to verify that the sign face will not exceed 40 square feet.

## RESPONSE:

Exhibit 1 at page 5 of applicant's response (dated June 8, 2018) to the County's request for additional information includes the proposed monument measurements. The sign panel is supported by a concrete footing, and attached thereto. As shown in the figure below, the sign panel is 96" long with a maximum height of 42" on one side sloping down to 27.25" on the other side and therefore has a face of approximately 23 square feet or less than 40 square feet as required.



## 30% Design Entry Monument Sign Dimensions

Additionally, a condition of approval can be adopted, requiring the monument sign to be less than 40 square feet, to ensure compliance. This sign is a typical Metro monument sign that is also utilized (and was County approved) at Oxbow Regional Park, among other places. **Issue #10.** You have indicated that Metro, "may erect parking area/entrance/and exit signs in association with the entry/access improvements." Because these signs are allowed "in accordance with the provisions specified in each district." we need to know if Metro is going to propose these signs so we can evaluate them under the requirements of the base zone.

## RESPONSE:

In response to sign standard § 33.4190, applicant indicates that new signs proposed include a monument sign, parking lot signage (such as ADA parking signs), and information signs associated with the natural area and trails (such as rules signs, trail signs, wayfinding information, etc.). Although represented as proposed, directional signs will not be installed. Instead, applicant will include directional arrows on the access driveway as required by § 33.4170(A).

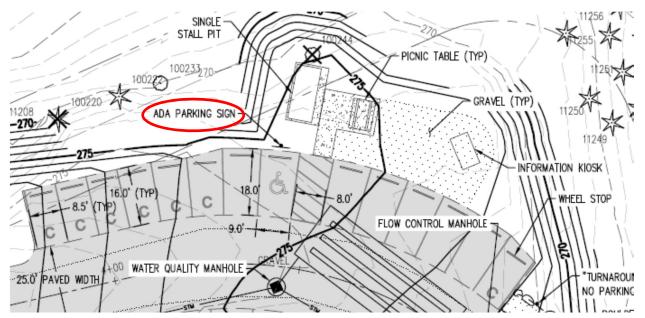
**Item #11.** Regarding MCC 33.7465 (D) – The ADA parking sign appears to be proposed affixed to the restroom building, but that is unclear. If the sign is free standing or there are any other free standing signs in pedestrian areas can you provide detail indicating that those signs meet subsection (D) – such as meeting the 8.5 foot standard.

## RESPONSE:

§ 33.7465 SIGN PLACEMENT regulates the placement of signs, Subsection (D) referenced above regulates signs that extend over travel or parking areas, requiring them to be at least 14 feet above the ground to allow for vehicles to travel underneath them. Metro is not proposing any signs that vehicles pass under. The only reference to 8.5 feet is in subsection (E), which similarly regulates pedestrian area sign clearances. The bottom edge of the accessible parking space sign shall be mounted on a post at a minimum of 8.5 feet above finish grade.

An ADA parking sign is located in front of the accessible parking space on a free-standing post as shown below and on sheet 4 of the Burlington parking preliminary site plan.

30% Design Accessible Sign Location



ADA parking signs, height, location, and size are strictly regulated by federal law and state building code. ADA signs associated with the ADA parking space are designed to comply with those standards.

**Issue #12.** Regarding MCC 33.0570 (Dark Sky Lighting Standards) - Specifically (C) (2), the lighting must be contained within the boundaries of the Lot of Record on which it is located. To satisfy this standard, shielding in addition to the shielding required in paragraph (C)(1) of this section may be required and because the security light will be on a pole we may need a lighting engineer to provide light contours on the site plan showing how the light will remain on the Lot of Record. Similarly, the requirement that the security light and restroom building light be shielded with the light directed only where needed should also be addressed. It will also be necessary to provide specifics regarding the light fixture design and their respective heights above grade.

## RESPONSE:

At this time, the only lighting proposed is on the vault toilet. No other lighting is proposed. Please disregard the reference to an additional light located on a pole in applicant's narrative response to § 33.4185.

Applicant provided additional detail concerning this standard in a response (dated June 8, 2018) to a request for additional clarifications dated April 2, 2018. In that response, item 8, applicant provided an additional orientation site plan for the vault toilet light.

Lighting will be mounted on the south/southwest side of the vault toilet structure and will not be visible from any location off site or downslope. The light will be approximately 7

feet off the ground. The vault toilet is located in an area that can be described as a hollow, 25 feet lower in elevation than the entrance grade on NW McNamee, and is not visible. The light is dark sky compliant. The light is directed downward, hooded and shielded.

The requirement to shield or otherwise direct light downward can be made a condition of approval to ensure compliance.

*Item #13.* Can you verify the maximum height of each bridge above grade? I want to be sure I have accurately addressed MCC 33.2050 – building height.

## RESPONSE:

§ 33.2050 is a building height standard. It does not regulate or limit how high a bridge may be from the streambed it is crossing. Stated otherwise, the air space in between the streambed and the bridge does not count toward measuring building or structure height.

Despite that, bridges and a boardwalk will extend a maximum of 2 feet to 6 feet from top of decking to bottom of drainage grade. Bridge deck heights above the lowest point of each drainage for each crossing structure are provided in the table below.

Crossing	Bridge Width (feet)	Bridge Length (feet)	Distance b/t OHWLs (feet)	Max bridge height above drainage bed (feet)
1	6	15	5	3.5
2	6	20	2	6
3	6	20	3	3
4	4	20	2	3
5	6	40	3	6
6	6	25	3	5
7	6	30	3	5
8	4	15	3	2

30% Design Crossing Structure Heights

Respectfully submitted,

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Gary Shepherd Office of Metro Attorney

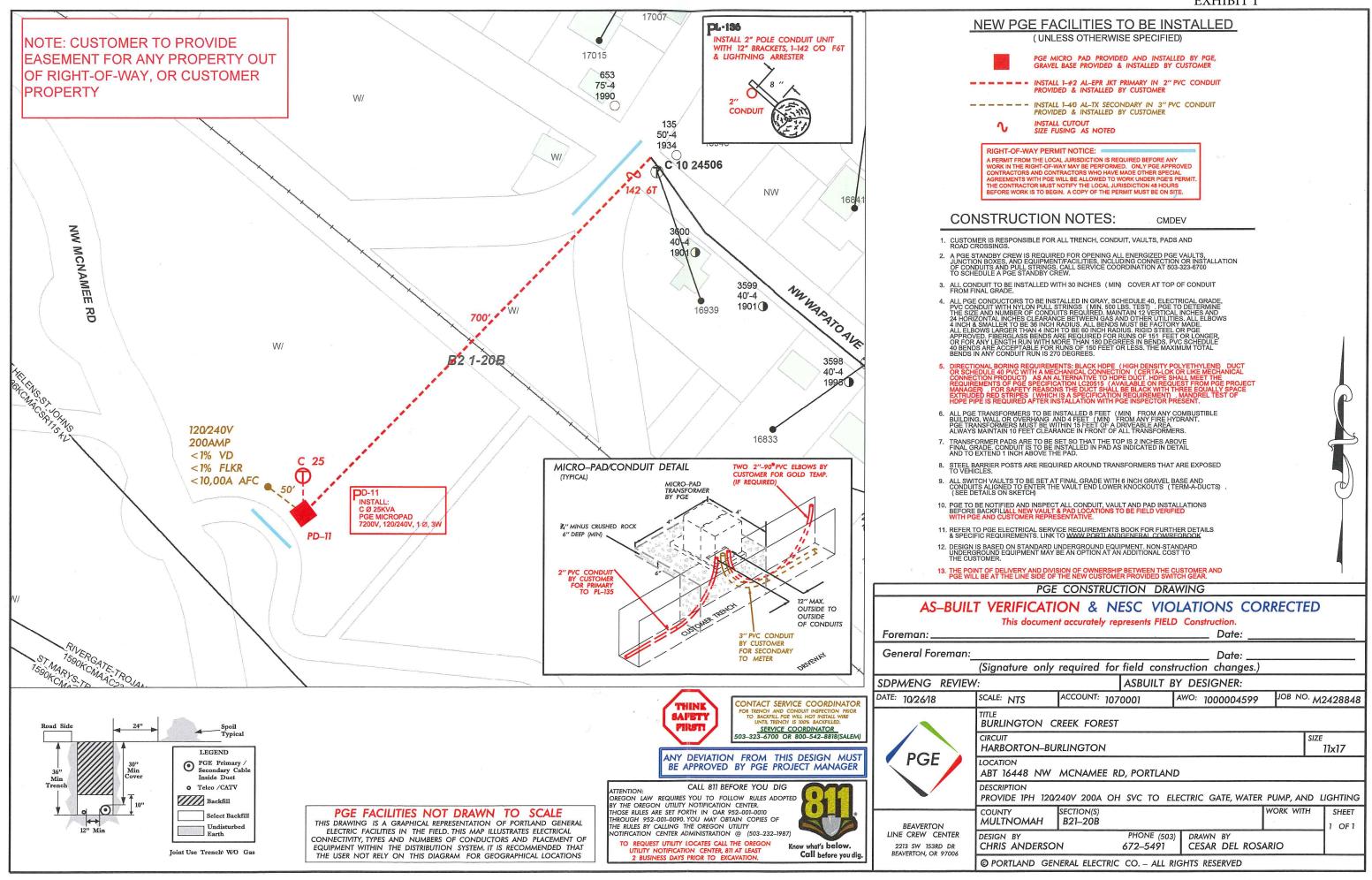


EXHIBIT	1
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## Exhibit A.26.1

#### WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

Fully completed and signed report cover forms and applicable fees are required before report review timelines are initiated by the Department of State Lands. Make checks payable to the Oregon Department of State Lands. To pay fees by credit card, go online at: https://apps.oregon.gov/DSL/EPS/program?key=4. Call 503-986-5200 with questions.

Attach this completed and signed form to the front of an unbound report or include a hard copy with a digital version (single PDF file of the report cover form and report, minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.** A single PDF of the completed cover from and report may be e-mailed to: **Wetland\_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail DSL instructions on how to access the file from your ftp or other file sharing website.

Applicant 🗌 Owner Name, Firm and Address:	Business phone # (503) 797-1700
Metro	Mobile phone # (503) 758-4878
c/o Karen Vitkay	E-mail: Karen.Vitkay@oregonmetro.gov
600 NE Grand Avenue	
Portland, OR 97232-2736	
Authorized Legal Agent, Name and Address:	Business phone #
	Mobile phone #
	E-mail:
the property for the purpose of confirming the information in the rep	to allow access to the property. I authorize the Department to access
Typed/Printed Name: Karen Vitkay	
Date: Special instructions regarding site acc	
Project and Site Information (using decimal degree for lat	t/long.,enter centroid of site or start & end points of linear project)
Project Name:	Latitude: 45.6400905 Longitude: -122.8414413
Burlington Creek Forest OHWM/L Delineation	Tax Map No. 2N 1W 20; Tax Lot: 400 (partial)
	Tax Map No. 2N 1W 20B; Tax Lots: 300, 500 (all partial)
	Tax Map No. 2N 1W 20C; Tax Lots: ROW, 300, 500 (all partial) Tax Map No. 2N 1W 20BC; Tax Lots: ROW, 1000, 1100, and 1200
	(all partial)
Project Street Address (or other descriptive location):	Township 2N Range 1 W Section 20
East of SW McNamee Road	QQ: SWNW, SENW, NESW, NWSW, SESW, SESW
Burlington Creek Forest, southwest of unincorporated	Use separate sheet for additional tax and location info.
Burlington, Oregon	Waterway: N/A River Mile: N/A
City: Portland County: Multnomah Wetland Delineation Information	
	Dhana # (502) 204 0222
Wetland Consultant Name, Firm and Address: Chris Moller	Phone # (503) 224-0333 Mobile phone # (503) 853-6589
SWCA Environmental Consultants	E-mail: chris.moller@swca.com
1800 NW Upshur Street, Suite 100	-
Portland, OR 97209	
The information and conclusions on this form and in the atta Consultant Signature: $1/1 - 2$	ched report are true and correct to the best of my knowledge
	Date: 10/29/2021
- Mal	Date: 10/29/2021
Primary Contact for report review and site access is 🛛 C	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent
Primary Contact for report review and site access is       C         Wetland/Waters Present?       Yes       No       Study Area	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent
Primary Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for report review and site access is       Image: Contact for re	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent a(s) size: <b>1.44 ac</b> . Total Wetland Acreage: <b>0.0</b> Waters: <b>0.061</b>
Primary Contact for report review and site access is       C         Wetland/Waters Present?       Yes       No       Study Area	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent
Primary Contact for report review and site access is       C         Wetland/Waters Present?       Yes       No       Study Area         Check Applicable Boxes Below         R-F permit application submitted         Mitigation bank site	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent a(s) size: <b>1.44 ac</b> . Total Wetland Acreage: <b>0.0</b> Waters: <b>0.061</b> Fee payment submitted \$ <u>500 to be paid</u> Resubmittal of rejected report (\$100)
Primary Contact for report review and site access is       Image: Contact for review and site access is       Image: Contact	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent a(s) size:1.44 ac. Total Wetland Acreage: 0.0 Waters: 0.061 Fee payment submitted \$500 to be paid Resubmittal of rejected report (\$100) Request for Reissuance. See eligibility criteria.
Primary Contact for report review and site access is       O         Wetland/Waters Present?       Yes       No       Study Area         Check Applicable Boxes Below         R-F permit application submitted         Mitigation bank site         EFSC/ODOE Proj. Mgr:         Wetland restoration/enhancement project (not mitigation)	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent a(s) size: <b>1.44 ac</b> . Total Wetland Acreage: <b>0.0</b> Waters: <b>0.061</b> Fee payment submitted <b>\$500 to be paid</b> Resubmittal of rejected report (\$100) Request for Reissuance. See eligibility criteria.
Primary Contact for report review and site access is         Wetland/Waters Present?         Yes         No         Study Area         Check Applicable Boxes Below         R-F permit application submitted         Mitigation bank site         EFSC/ODOE Proj. Mgr:         Wetland restoration/enhancement project (not mitigation)         Previous delineation/application on parcel	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent a(s) size:1.44 ac. Total Wetland Acreage: 0.0 Waters: 0.061 Fee payment submitted \$500 to be paid Resubmittal of rejected report (\$100) Request for Reissuance. See eligibility criteria. (no fee) DSL # Expiration date
Primary Contact for report review and site access is       O         Wetland/Waters Present?       Yes       No       Study Area         Check Applicable Boxes Below         R-F permit application submitted         Mitigation bank site         EFSC/ODOE Proj. Mgr:         Wetland restoration/enhancement project (not mitigation)	Date: 10/29/2021 Consultant Applicant/Owner Authorized Agent a(s) size:1.44 ac. Total Wetland Acreage: 0.0 Waters: 0.061 Fee payment submitted \$500 to be paid Resubmittal of rejected report (\$100) Request for Reissuance. See eligibility criteria.
Primary Contact for report review and site access is         Wetland/Waters Present?         Yes         No         Study Area         Check Applicable Boxes Below         R-F permit application submitted         Mitigation bank site         EFSC/ODOE Proj. Mgr:         Wetland restoration/enhancement project (not mitigation)         Previous delineation/application on parcel         If known, previous DSL #	Date: 10/29/2021         Consultant       Applicant/Owner       Authorized Agent         a(s) size:1.44 ac. Total Wetland Acreage: 0.0 Waters: 0.061         Fee payment submitted \$500 to be paid         Resubmittal of rejected report (\$100)         Request for Reissuance. See eligibility criteria. (no fee) DSL # Expiration date         LWI shows wetland or waters on parcel
Primary Contact for report review and site access is         Wetland/Waters Present?         Yes         No         Study Area         Check Applicable Boxes Below         R-F permit application submitted         Mitigation bank site         EFSC/ODOE Proj. Mgr:         Wetland restoration/enhancement project (not mitigation)         Previous delineation/application on parcel         If known, previous DSL #	Date: 10/29/2021         Consultant       Applicant/Owner       Authorized Agent         a(s) size:1.44 ac. Total Wetland Acreage: 0.0 Waters: 0.061         Fee payment submitted \$500 to be paid         Resubmittal of rejected report (\$100)         Request for Reissuance. See eligibility criteria. (no fee) DSL # Expiration date         LWI shows wetland or waters on parcel Wetland ID code

# Exhibit A.26.2

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**EXHIBIT 2 - REPORT** 



Burlington Creek Forest Ordinary High Water Mark/Line Delineation Report

OCTOBER 2021

PREPARED FOR

PREPARED BY

**SWCA Environmental Consultants** 

## BURLINGTON CREEK FOREST ORDINARY HIGH WATER MARK/LINE DELINEATION REPORT TOWNSHIP 2 NORTH, RANGE 1 WEST, SECTION 20, MULTIPLE TAX LOTS, MULTNOMAH COUNTY, OREGON

Prepared for

Metro 600 NE Grand Avenue Portland, Oregon 97232-2736

Prepared by

#### **SWCA Environmental Consultants**

1800 NW Upshur Street, Suite 100 Portland, Oregon 97209 (503) 224-0333 www.swca.com

October 2021

SWCA Project No. 44592.04

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# **1 INTRODUCTION**

SWCA Environmental Consultants (SWCA) conducted a delineation of non-wetland waters on the subject site located in Burlington Creek Forest, southwest of unincorporated Burlington, Oregon (Figure 1). The subject study areas are located on portions of Tax Lot 400 (partial) on Tax Map 2N 1W 20; Tax Lots 300 and 500 (both partial) on Tax Map 2N 1W 20B; Tax Lots 1000, 1100 and 1200 (all partial) on Tax Map 2N 1W 20BC; and Tax Lots 300 and 500 (all partial) on Tax Map 2N 1W 20C (Figures 2, 3, and 3.1–3.3). All tax maps and tax lots are located within Multnomah County, Oregon.

This report focuses on eight proposed recreational trail crossing (study areas) locations, where the property owner (Metro) proposes creating trail crossings (bridges) over intermittent waters. SWCA evaluated these study areas on August 29, 2021; September 4, 2001; and September 15, 2021. The ordinary high water mark/line (OHWM/L) was delineated at each study area. No wetlands were found within the study areas. Wetland determination forms are included in Appendix A.

# 2 LANDSCAPE SETTING AND LAND USE

The Metro site is located on the lower slopes of the Tualatin Mountains, southwest of U.S. Highway 30 (U.S. 30), east of NW McNamee Road and south of a residential neighborhood in unincorporated Burlington (11.5 miles northwest of downtown Portland, Oregon). Burlington Bottoms wetlands are located across U.S. 30 to the north. The elevations within the study areas range from 154 feet to 510 feet above mean sea level. The generally northeast-facing forested hillsides are vegetated with Douglas-Fir (*Pseudotsuga menziesii*), Big-Leaf Maple (*Acer macrophyllum*), Western Red Cedar (*Thuja plicata*), and Red Alder (*Alnus rubra*).

# **3 SITE ALTERATIONS**

Two powerlines and their managed vegetation corridors exist on-site. A service road, water tower and associate water lines also exist within the Metro property boundaries close to the study areas. Historical aerial photographs appear to indicate the site was logged between 1994 and 1995. The slopes are covered in downed woody debris (slash) from logging activities. Some of the debris has made it into the lower portions of the ravines surrounding delineated OHWM/L. Representative ground-level site photographs are included in Appendix B.

# 4 PRECIPITATION DATA AND ANALYSIS

The Natural Resources Conservation Service (NRCS) Climate Analysis for Wetlands (WETS) station and observed precipitation data for the subject site were obtained from the Portland International Airport station located in Portland, Oregon (U.S. Department of Agriculture 2021). According to the WETS table for the station, average annual rainfall is 36.91 inches. Table 1 shows the monthly precipitation averages according to the WETS station and observed precipitation according to the National Oceanic and Atmospheric Administration (NOAA) for the 3 months prior to SWCA's site visits on August 29 through September 15, 2021.

	30% Chano	ce Will Have	Observed		
Average (inches)	Less Than	More Than	Precipitation	Within Normal Range?	
()	(inc	hes)	(inches)		
0.54	0.18	0.61	0.05	Below normal (8%)	
0.50	0.21	0.57	0.00	Below normal (0%)	
1.63	0.99	1.97	1.25	Normal (77%)	
2.51	1.36	3.05	0.58	Below normal (23%)	
	(inches) 0.54 0.50 1.63	Average (inches)         Less Than (inc           0.54         0.18           0.50         0.21           1.63         0.99	Less Tran         More Tran           (inches)         (inches)           0.54         0.18         0.61           0.50         0.21         0.57           1.63         0.99         1.97	Average (inches)Less Than More Than (inches)Observed Precipitation (inches)0.540.180.610.050.500.210.570.001.630.991.971.25	

#### Table 1. Precipitation Data – Select Monthly Averages Based on the Climate Period 1991–2020

Sources: U.S. Department of Agriculture (2021), NOAA (2021).

Table 2 shows precipitation on the day of the field visits, 2 weeks prior, water year to date (WYTD), calendar year to date (CYTD), and normal values, based on the Portland International Airport station.

**Table 2. Precipitation Summary** 

		Observed Prec	ipitation (inche			
Field Visit Date	Two Weeks		CYTD	<ul> <li>WYTD Normal Value (Percentage of Normal)</li> </ul>	CYTD Normal Value (Percentage of Normal)	
August 29, 2021	0.00	0.02	26.46	14.58	35.31 (75%)	20.67 (71%)
September 4, 2021	0.00	0.00	26.46	14.58	35.49 (75%)	20.87 (70%)
September 15, 2021	0.00	0.00	26.46	14.58	35.93 (74%)	21.29 (69%)

Source: NOAA (2021).

Using the standard template for antecedent rainfall (Appendix C), these data show that the rainfall over the preceding 4 months was drier than normal. Due to the summer (late season) field visit and below-normal precipitation, a lack of primary indicators of hydrology alone was not considered sufficient to determine presence of hydrology.

# 5 METHODS

The OHWM/L was delineated according to the *Regulatory Guidance Letter No. 05-05* (U.S. Army Corps of Engineers [USACE] 2005) and Oregon Administrative Rules (Oregon Department of State Lands [DSL] 2013). OHWM/L determinations were based on vegetation and substrate changes, presence of bed and banks, rock shelving, rock scour, wracking, drift deposit lines, and transition from upland to wetland/aquatic vegetation.

The methodology used for determining the presence of wetlands was in accordance with the USACE *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE 2010), used by both the DSL and the USACE. *The National Wetland Plant List* 2018 (USACE 2018) was used to identify the region's wetland indicator status for observed species (Appendix D).

Soils, vegetation, and wetland hydrology indicators were recorded at eight sample plot locations on standardized wetland determination data forms (see Appendix A) to document site conditions.

The NRCS Web Soil Survey (NRCS 2021a) maps Goble silt loam, 30 to 60 percent slopes on the slopes adjacent to the mapped waters (Figure 4); Goble is a well-drained, non-hydric soil. A recent aerial photograph is shown in Figure 6.

# 6 DESCRIPTION OF NON-WETLAND WATERS

## 6.1 Non-wetland Waters

The study areas are located within the Burlington Creek Forest. U.S. 30 and forested slopes northwest of the highway separate the area from the Burlington Bottoms wetlands. Six unnamed tributaries were documented within the Burlington Creek Forest study areas. The banks of all the unnamed tributaries were composed of silt loam. Some of the lower tributaries had rock and cobble streambeds whereas higher elevation tributaries had sand and silt bottoms. The National Wetlands Inventory (NWI) (see Figure 5) (U.S. Fish and Wildlife Service 2021) mapped an unnamed tributary of Burlington Creek (labeled number 5 in our study) as riverine intermittent streambed with a seasonally flooded water regime (R4SBC) using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). The summary of OHWM/L indicators associated with each tributary are represented in Table 3.

OHWM/L Field	Observed Within Study Area?						
Indicators	Unnamed Tributary 1	Unnamed Tributary 2	Unnamed Tributary 3	Unnamed Tributary 4	Unnamed Tributary 5*	Unnamed Tributary 6	
Natural line impressed on the bank		-	x		x		
Shelving			x		x		
Changes in the character of soil	x	x	X	x	x	x	
Destruction of terrestrial vegetation	x	X	X	X	X	Х	
Presence of litter and debris	x	X	X		X		
Wracking		X		x	X		
Vegetation absent (No matted down or bent vegetation present)	x	x	X	X	X	x	
Sediment sorting		X	X		x		
Leaf litter disturbed or washed away	x	x	x	x	x	х	
Scour	x	x	x	x	x	x	
Deposition	х	Х	Х	Х	Х	Х	

Table 3. OHWM/L Indicators Observed at Each Location

OHWM/L Field	Observed Within Study Area?						
Indicators	Unnamed Tributary 1	Unnamed Tributary 2	Unnamed Tributary 3	Unnamed Tributary 4	Unnamed Tributary 5*	Unnamed Tributary 6	
Bed and banks					X		
Water staining			Х	х	Х		
Change in plant community	X	X	x	x	X	x	

\* It is interesting to note that the only tributary mapped by the NWI (5) is the only tributary that displayed all field indicators (except direct observation of flow events).

The OHWM/L was delineated using DSL and USACE methods. An overview of the delineation maps in relation to study area tax lots is provided in Figure 7. The individual delineation maps are provided in Figures 7.1 through 7.8.

# 6.2 Uplands

The forested slopes surrounding the tributaries were dominated by facultative and facultative upland species. The transition from OHWM/L to upland plants included Himalayan Blackberry (*Rubus armeniacus*), California Dewberry (*Rubus ursinus*), Salmonberry (*Rubus spectabilis*), Pineland or Western Swordfern (*Polystichum munitum*), and other species noted in Appendix D. Hydrology indicators above OHWM/L within uplands were lacking. Soils above OHWM/L at all sample plot locations lacked primary and secondary indicators of hydric soils.

# 6.3 Deviation from Local Wetlands Inventory or National Wetlands Inventory

The NWI (see Figure 5) shows Burlington Creek and unnamed tributaries in the same general area and same general configurations observed within the study areas. Five of the six unnamed ephemeral tributaries (Unnamed Tributaries 1–4 and 6) identified in this report were not mapped. Unnamed Tributary 5 is mapped as a riverine intermittent streambed, seasonally flooded (R4SBC). The unnamed tributaries would be best classified as riverine using the *Guidebook for Hydrogeomorphic (HGM)–based Assessment of Oregon Wetland and Riparian Sites: Statewide Classification and Profiles* (Adamus 2001).

There is no Local Wetlands Inventory for the subject site.

## 7 MAPPING METHOD

SWCA surveyed the OWHWM/L boundaries, sample plot locations, and ground-level photographs locations using a Juniper Geode Global Navigation Satellite System receiver paired with a Samsung computer tablet using Collector for ArcGIS software. Horizontal map accuracy is less than 1 m.

# 8 ADDITIONAL INFORMATION

No waters are mapped as Essential Salmonid Habitat within the study areas (DSL 2021).

# 9 RESULTS AND CONCLUSION

The OHWM/L of the eight separate study areas are summarized in Table 4.

Tributary/Crossing	OHWM/L Acreage (within study areas)
Unnamed Tributary 1	0.012
Unnamed Tributary 2	0.004
Unnamed Tributary 3/Crossing 1	0.013
Unnamed Tributary 3/Crossing 2	0.007
Unnamed Tributary 4	0.005
Unnamed Tributary 5/Crossing 1	0.007
Unnamed Tributary 5/Crossing 2	0.007
Unnamed Tributary 6	0.006
Total Non-wetland Waters	0.061

Table 4. OHWM/L Acreage within Study Areas

No wetlands were found within any of the eight study areas.

All the unnamed tributaries discussed in this report have a surface water connection to tidally influenced, navigable waterways and/or wetlands adjacent to tidally influenced navigable waterways. Only one of the six tributaries (Unnamed Tributary 5) appears to have support intermittent flows and five of the six tributaries appear ephemeral. Unnamed Tributary 5 is likely to be determined to be jurisdictional by the DSL and the US Army Corps of Engineers. The ephemeral tributaries (Unnamed Tributaries 1–4 and 6) may not be considered jurisdictional by either the US Army Corps of Engineers or DSL. Jurisdictional determination is the responsibility of the regulatory agencies.

# **10 REQUIRED DISCLAIMER**

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

# 11 LIST OF PREPARERS

Report prepared by:

Chris Moller Wetland Scientist

Report reviewed by:

C. Mintallally



C. Mirth Walker, SPWS Senior Wetland Scientist

# 12 LITERATURE CITED AND REVIEWED

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- U.S. Department of Agriculture (USDA). 2021. WETS Climate Data Portland International Airport, Oregon. Available at: http://agacis.rcc-acis.org/?fips=41051, instructions at: https://www.nrcs.usda.gov/wps/portal/wcc/home/climateSupport/agAcisClimateData/. Accessed October 18, 2021.
- U.S. Fish and Wildlife Services. 2021. National Wetlands Inventory. Available at: https://fws.gov/wetlands/. Accessed October 18, 2021.

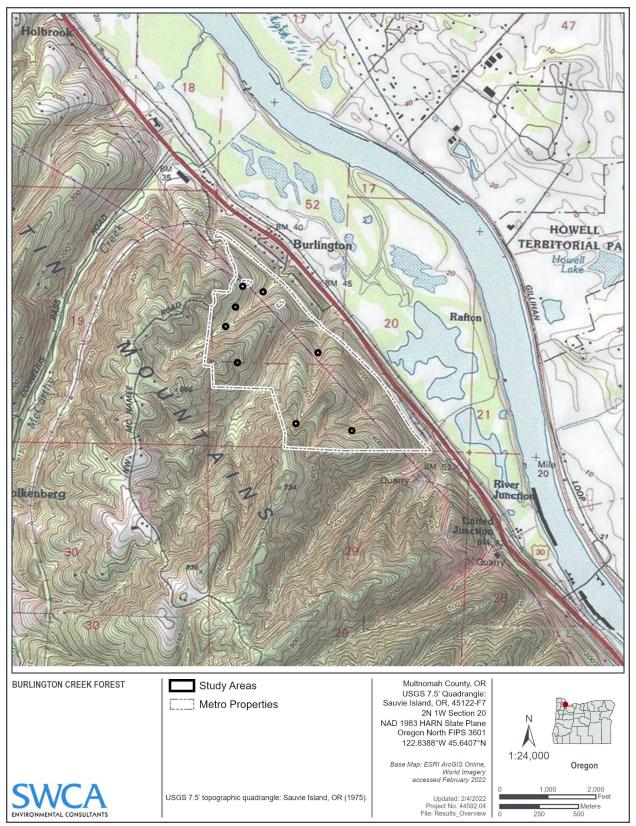


Figure 1. Site location map.

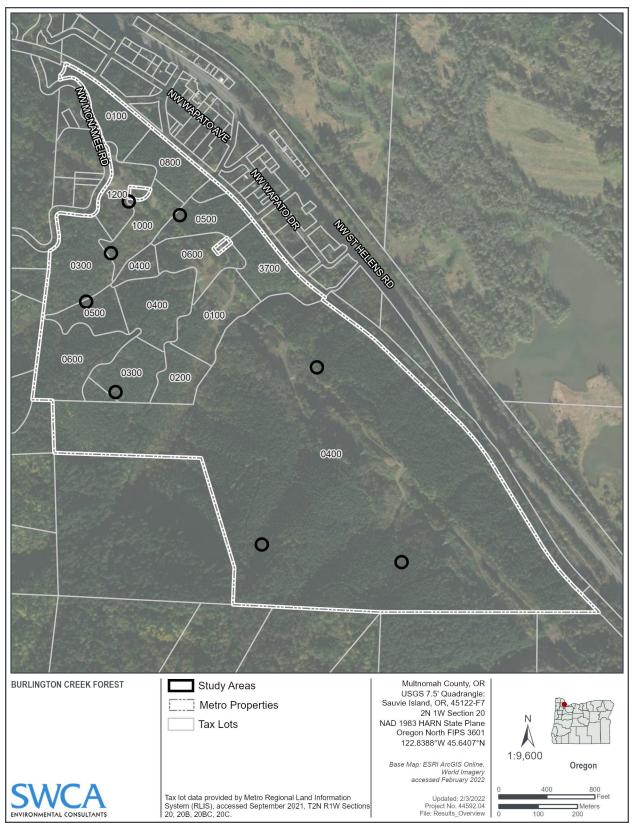


Figure 2. Tax lot map with aerial photograph.

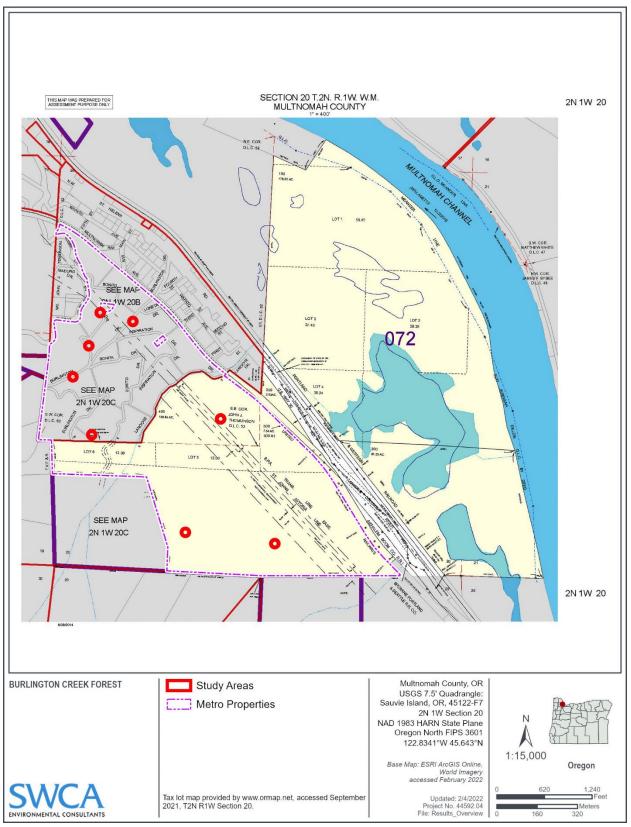


Figure 3. Tax lot map 2N1W20 (paper base). Note: Certain platted roadways depicted in this map were vacated, and of record as document no. 2021-015254 (Res. 2020-097).

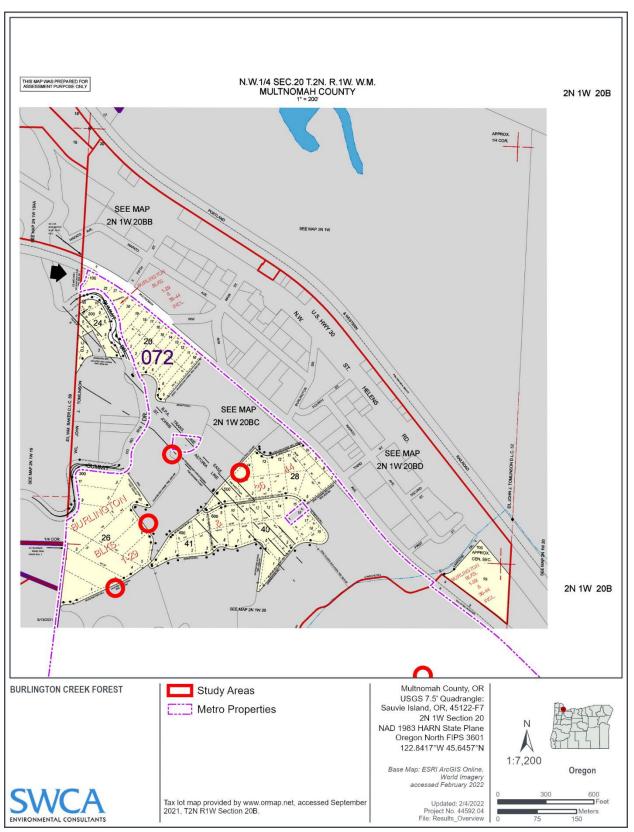


Figure 3.1. Tax lot map 2N1W20B (paper base). Note: Certain platted roadways depicted in this map were vacated, and of record as document no. 2021-015254 (Res. 2020-097).

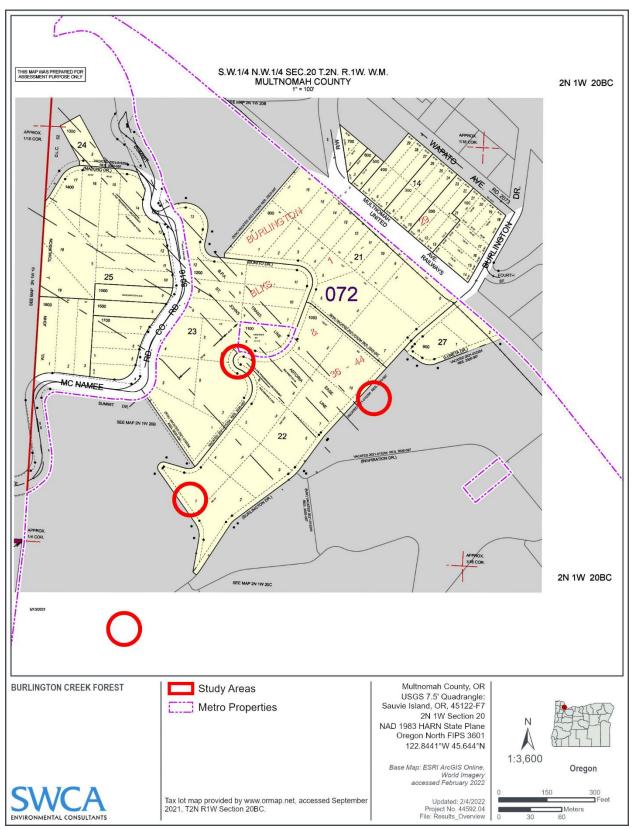


Figure 3.2. Tax lot map 2N1W20BC (paper base). Note: Certain platted roadways depicted in this map were vacated, and of record as document no. 2021-015254 (Res. 2020-097).

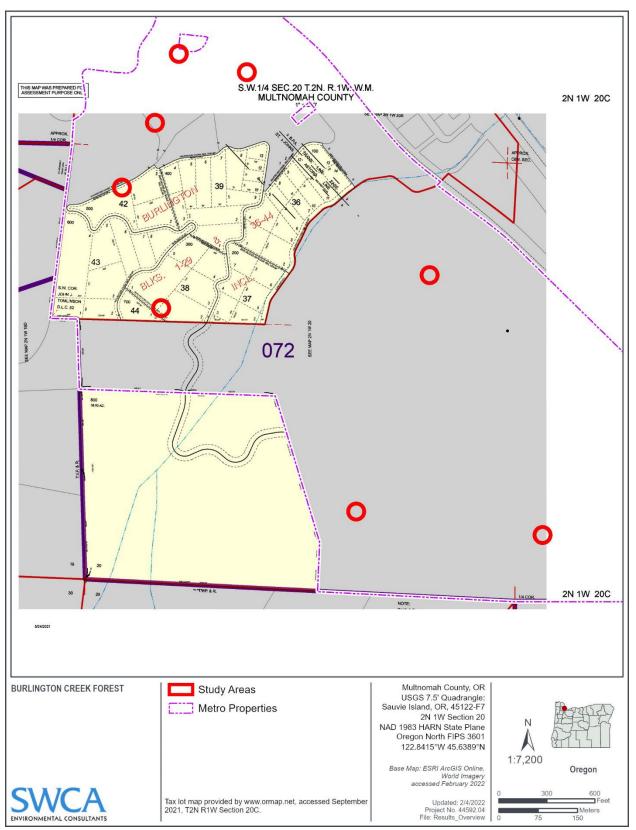


Figure 3.3. Tax lot map 2N1W20C (paper base). Note: Certain platted roadways depicted in this map were vacated, and of record as document no. 2021-015254 (Res. 2020-097).

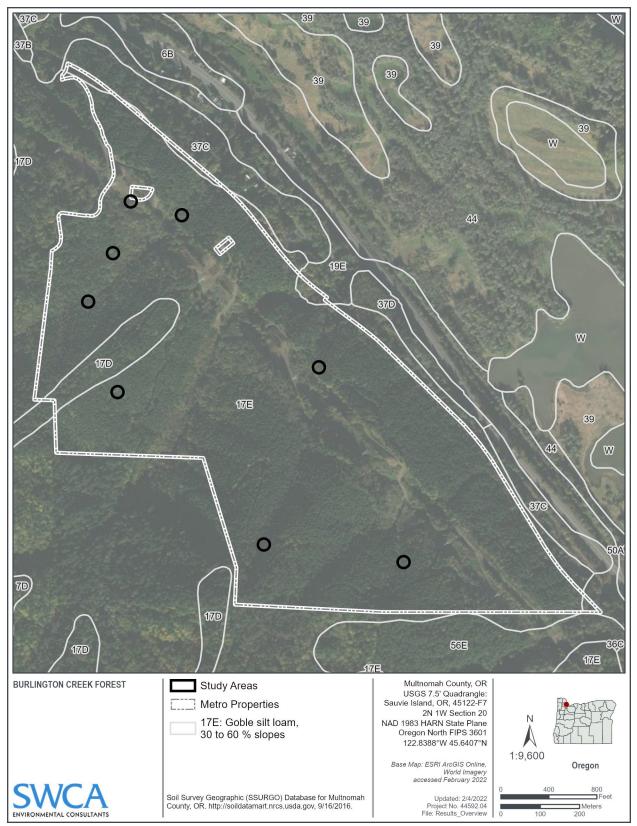


Figure 4. County soil survey map.

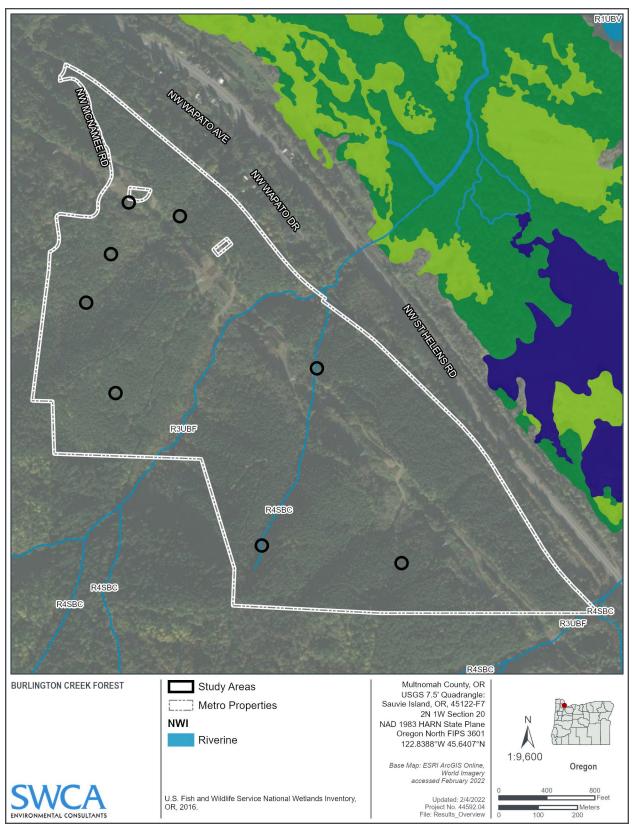


Figure 5. NWI map.

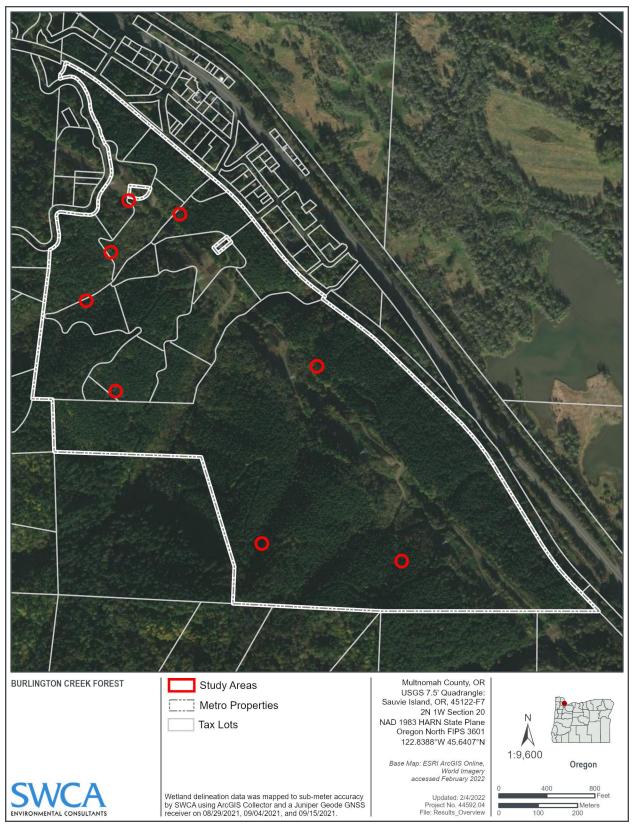


Figure 6. Aerial photograph map.

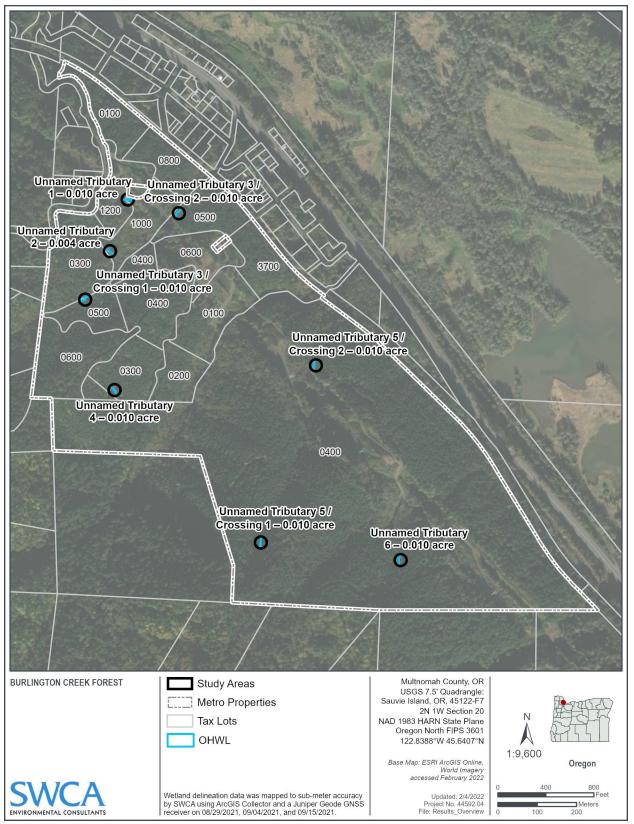


Figure 7. OHWM/L study areas in relation to entire site.

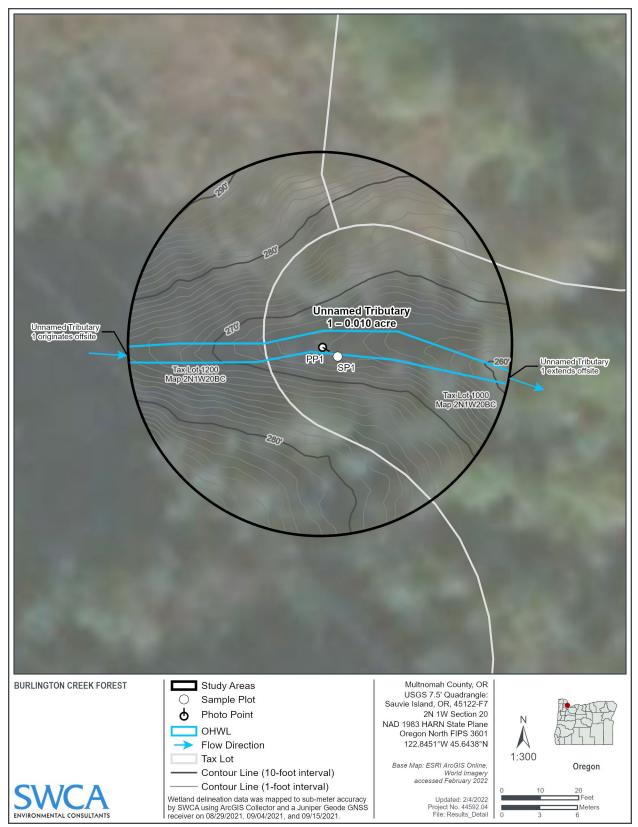


Figure 7.1. OHWM/L delineation map – enlargement of Unnamed Tributary 1.

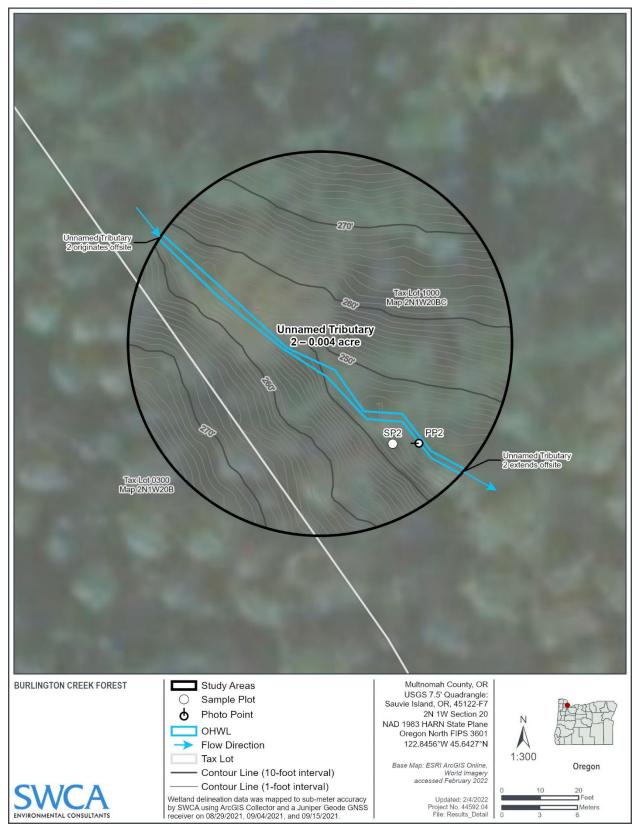


Figure 7.2. OHWM/L delineation map – enlargement of Unnamed Tributary 2.

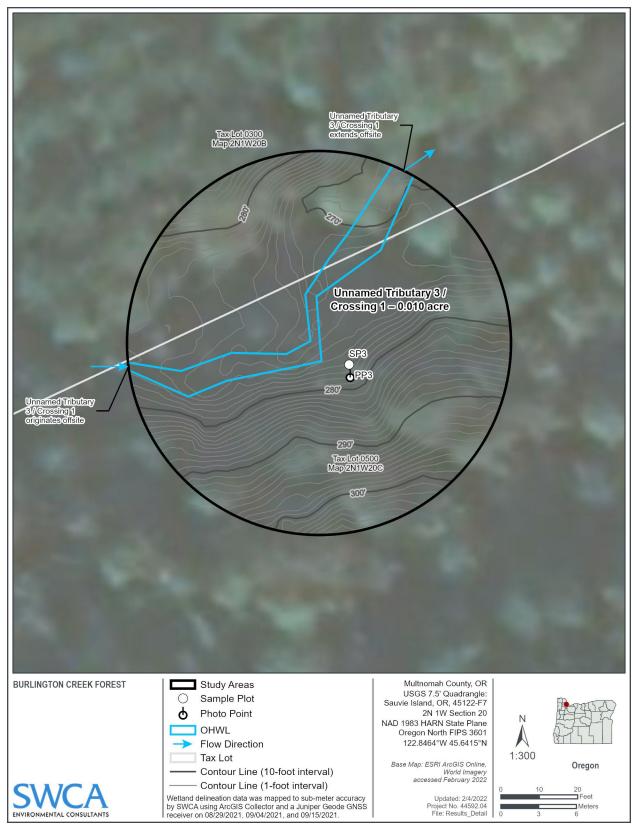


Figure 7.3. OHWM/L delineation map – enlargement of Unnamed Tributary 3, Crossing 1.

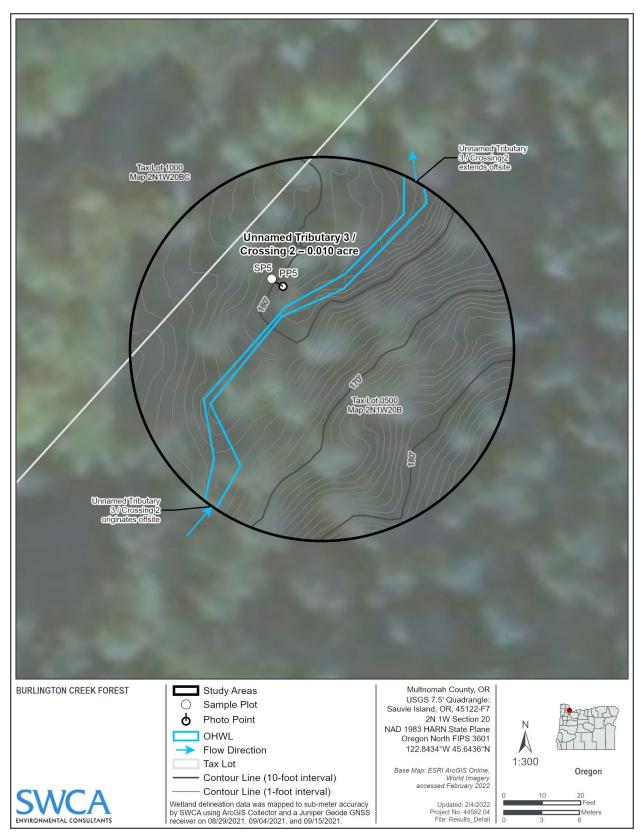


Figure 7.4. OHWM/L delineation map – enlargement of Unnamed Tributary 3, Crossing 2.

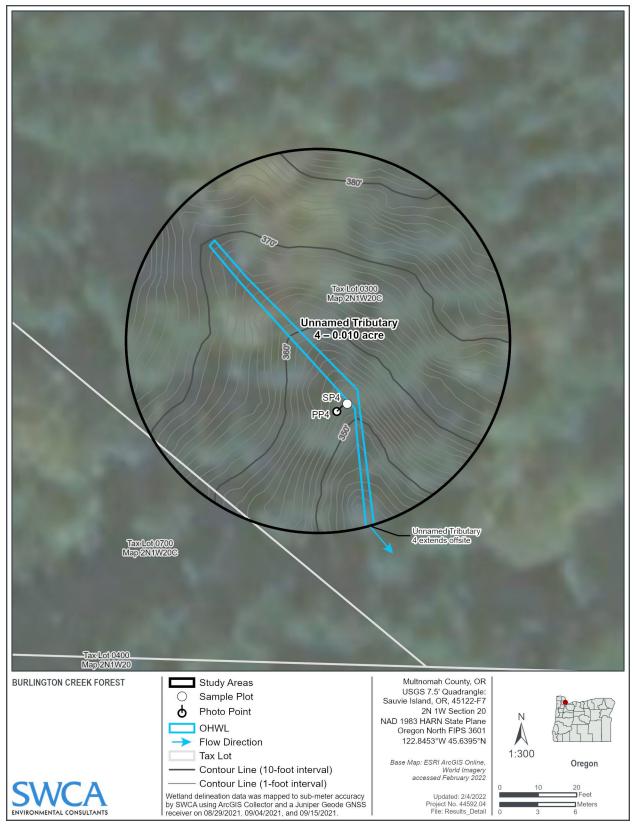


Figure 7.5. OHWM/L delineation map – enlargement of Unnamed Tributary 4.

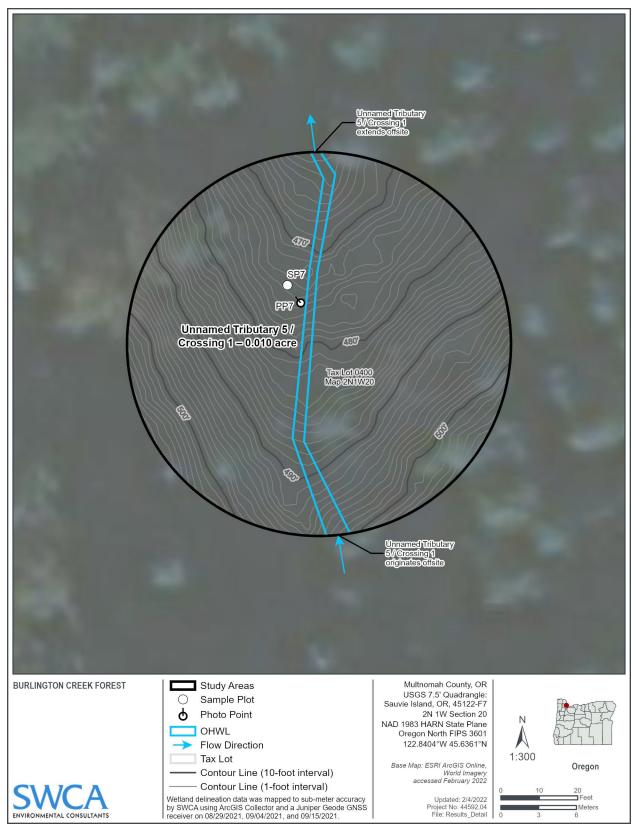


Figure 7.6. OHWM/L delineation map – enlargement of Unnamed Tributary 5, Crossing 1.

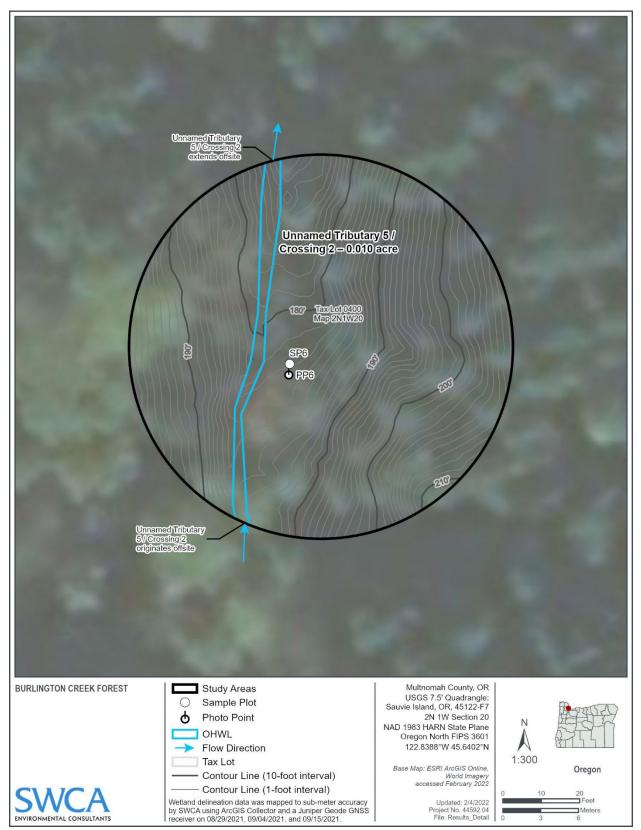


Figure 7.7. OHWM/L delineation map – enlargement of Unnamed Tributary 5, Crossing 2.

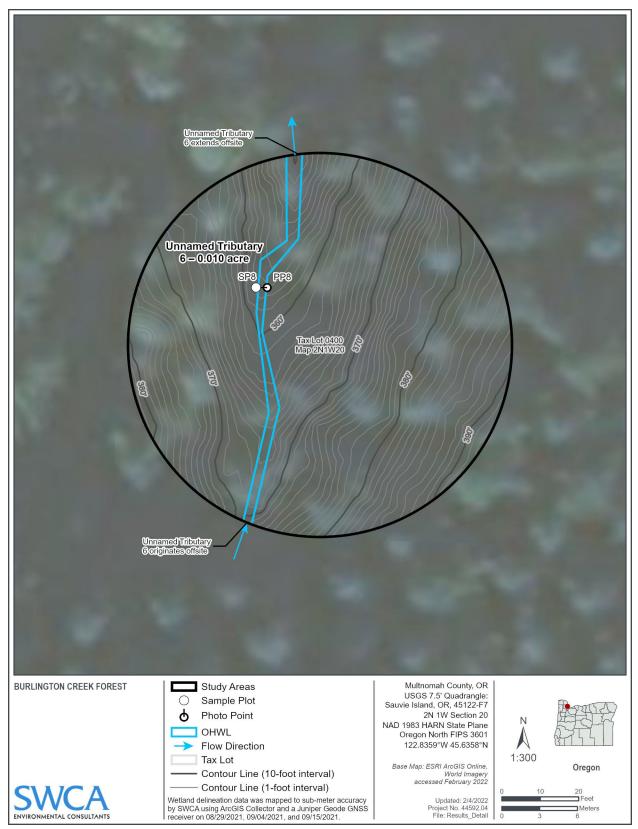


Figure 7.8. OHWM/L delineation map – enlargement of Unnamed Tributary 6.

## **APPENDIX A**

Wetland Determination Forms

Project/Site: Burlington Creek Forest OHV	V Delineation	City/County:	Portland / Mu	Iltnomah	Sampling Dat	e: 8/29/2021	l
Applicant/Owner: Metro				State: OR	Sampling	g Point:	SP1
Investigator(s): C. Moller		Section,	Township, Rang	ge: Sec. 20, T. 2N, R. 1	W		
Landform (hillslope, terrace, etc.): Hillslope			Local relief	(concave, convex, none):	Concave	Slope (%):	50
Subregion (LRR): A, Northwest Forests and	Coast	Lat: 45.643834	Lor	ng: -122.845076	Datur	m: WGS 198	34
Soil Map Unit Name: 17E: Goble silt	loam, 30 to 60 perce	ent slopes		NWI	classification:		
Are climatic / hydrologic conditions on the site	typical for this time	of year?	Ye	es X No	(If no, ex	plain in Rem	arks)
Are Vegetation,Soil	, or Hydrology	significantly	disturbed?	Are "Normal Circumstan	ces" present?	Yes X	No
<u> </u>	, or Hydrology			If needed, explain any a		,	
SUMMARY OF FINDINGS – Attacl	n site map show	ving sampling	point locati	ons, transects, in	nportant fea	tures, etc	).
Hydrophytic Vegetation Present?	Yes X	No					
Hydric Soil Present?	Yes	No <b>X</b>	Is the Samp	led Area			
Wetland Hydrology Present?	Yes	No <b>X</b>	within a We	tland? Yes	No	Х	
Precipitation prior to fieldwork: None Remarks:			•				
VEGETATION							
	Absolute	Dominant	Indicator	Dominance Test w	orksheet:		
<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	% Cover	Species?	Status	Number of Dominan			
1. Acer circinatum	45%	Yes	FAC	That Are OBL, FAC	•	3	(A)
2. Thuja plicata	15%	Yes	FAC	That Ale Obe, I AO	, or i AO		(~)
3.	1576	165	FAC	Total Number of Do	minant		
4.				Species Across All S		5	(B)
	60%	= Total Cover					(6)
Sapling/Shrub Stratum (Plot size: 10				Percent of Dominan	t Species		
1			FAO		•	60%	(4/D)
2. Rubus armeniacus	20%	Yes	FAC	That Are OBL, FAC			(A/B)
3.				Prevalence Index v Total % Cover		W.	
							_
4		. <u> </u>		OBL species	0 x 1 =	0	
5				FACW species	0 x 2 =	0	
(Plataiza: F'r)	20%	= Total Cover		· · · ·	80 x 3 =	240	
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				· · · _	55 x 4 =	220	
1. Polystichum munitum	30%	Yes	FACU	UPL species	0 x 5 =	0	
2					135 (A)	460	(B)
3				Prevalence Inde		<u>3.41</u>	
4				Hydrophytic Veget			
5				1 - Rapid Test fo		/egetation	
6				X 2 - Dominance	「est is >50%		
7				3 - Prevalence I	ndex is ≤3.0 <sup>1</sup>		
8				4 - Morphologica	al Adaptations <sup>1</sup>	(Provide sup	porting
9				data in Rema	arks or on a sep	arate sheet)	
10				5 - Wetland Nor	-Vascular Plant	.s <sup>1</sup>	
11.				Problematic Hyd	Irophytic Vegeta	ation <sup>1</sup> (Explai	in)
	30%	= Total Cover		<sup>1</sup> Indicators of hydric	soil and wetlan	d hydrology i	must
Woody Vine Stratum (Plot size: 10	<u>'r_)</u>			be present.			
1. Hedera helix	25%	Yes	FACU				
2		- Tatal O II		Hydrophytic			
	25%	= Total Cover		Vegetation	Yes X N	No	
% Bare Ground in Herb Stratum 700	//o			Present?			
Remarks:				Entere	ed by: clm	QC by: cmw	1

Depth	Ma			Redox Fe	alures			
(inches)	Color (moist)	%	Color (moist	) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark
0-4	10YR 3/4	100					SiL	dry
4-9	10YR 3/4	95	10YR 4/6	5	С	М	SiL	dry
9-20+	10YR 4/3	100	_				SiL	dry
							· · · · · · · · · · · · · · · · · · ·	
								<u> </u>
							·	
<u> </u>								
·							<b>.</b>	
						2		<u>.</u> .
				Covered or Coated Sa	and Grains.		=Pore Lining, M=Matr	
	tors. (Applicat		s, unless otherwi				or Problematic Hydr	10 30115 :
Histosol (A1)			Sandy Redo	. ,			ıck (A10)	
Histic Epipedor			Stripped Ma	( )			ent Material (TF2)	
Black Histic (A3	3)		Loamy Mucl	ky Mineral (F1) <b>(exce</b>	pt MLRA 1)	Very Sha	allow Dark Surface (T	F12)
Hydrogen Sulfi	ide (A4)		Loamy Gley	ed Matrix (F2)		Other (E	xplain in Remarks)	
Depleted Belov	w Dark Surface	(A11)	Depleted Ma	atrix (F3)				
Thick Dark Sur	face (A12)		Redox Dark	Surface (F6)		<sup>3</sup> Indicators o	f hydrophytic vegetati	on and
Sandy Mucky N	Mineral (S1)		Depleted Da	rk Surface (F7)		wetland hy	drology must be pres	ent,
Sandy Gleyed	Matrix (S4)		Redox Depr	essions (F8)		unless dist	urbed or problematic	
Type: Depth (inches): emarks: S =		 t; C = clay; L :	= loam or loamy; o	co = coarse; f = fine; v		l <b>ydric Soil Pre</b> a + = heavy (more	sent? Yes e clay); - = light (less	No X
Type: Depth (inches): emarks: S =	= sand; Si = SiL	 t; C = clay; L :	= loam or loamy; c	co = coarse; f = fine; v		•		
Type: Depth (inches): emarks: S = YDROLOGY etland Hydrolog	= sand; Si = SiL			o = coarse; f = fine; v		+ = heavy (more		clay)
Type: Depth (inches): emarks: S = YDROLOGY etland Hydrolog	= sand; Si = SiL y Indicators: (minimum of on		eck all that apply)	co = coarse; f = fine; v ed Leaves (B9) <b>(exc</b> i	vf = very fine; -	+ = heavy (more	e clay); - = light (less	clay) equired)
Type: Depth (inches): emarks: S = YDROLOGY etland Hydrology imary Indicators ( Surface Water	= sand; Si = SiL y Indicators: (minimum of on- (A1)		eck all that apply)	ed Leaves (B9) <b>(exce</b>	vf = very fine; -	+ = heavy (more <u>Secondary lı</u> Water-S	e clay); - = light (less ndicators (2 or more r	clay) equired)
Type: Depth (inches): emarks: S = YDROLOGY fetland Hydrolog rimary Indicators ( Surface Water High Water Tat	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2)		eck all that apply) Water-Stain 1, 2, 4A, a	ed Leaves (B9) <b>(exc</b> o and <b>4B)</b>	vf = very fine; -	+ = heavy (more <u>Secondary li</u> <u>Water-S</u> 4A, ar	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b>	clay) equired)
Type: Depth (inches): emarks: S = YDROLOGY /etland Hydrology rimary Indicators ( Surface Water	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2)		eck all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E	ed Leaves (B9) <b>(exco and 4B)</b> 311)	vf = very fine; -	+ = heavy (more <u>Secondary Ir</u> Water-S 4A, ar	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10)	equired) MLRA 1, 2,
Type: Depth (inches): emarks: S = YDROLOGY etland Hydrolog imary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1)		eck all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E Aquatic Inve	ed Leaves (B9) <b>(exce and 4B)</b> 311) rrtebrates (B13)	vf = very fine; -	+ = heavy (more Secondary li Water-S 4A, au Drainage Dry-Sea	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2)	equired) MLRA 1, 2,
Type: Depth (inches): emarks: S = YDROLOGY etland Hydrology imary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1) osits (B2)		eck all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen S	ed Leaves (B9) <b>(exca and 4B)</b> 311) vrtebrates (B13) ulfide Odor (C1)	vf = very fine; -	+ = heavy (more <u>Secondary In</u> Water-S 4A, an Drainage Dry-Sea Saturatio	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>1</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In	equired) MLRA 1, 2,
Type: Depth (inches): emarks: S = IYDROLOGY /etland Hydrology rimary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1) osits (B2) (B3)		eck all that apply) Water-Stain <b>1, 2, 4A</b> , a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh	ed Leaves (B9) <b>(exce and 4B)</b> B11) Prtebrates (B13) ulfide Odor (C1) izospheres along Liv	vf = very fine; -	+ = heavy (more <u>Secondary In</u> Water-S 4A, an Drainage Dry-Sea Saturation Geomor	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2)	equired) MLRA 1, 2,
Type: Depth (inches): emarks: S = IYDROLOGY fetland Hydrolog rimary Indicators ( Surface Water High Water Tal Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr	= sand; Si = SiL y Indicators: (minimum of on- (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4)		eck all that apply) Water-Stain <b>1, 2, 4A</b> , a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of	ed Leaves (B9) <b>(exca and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4)	vf = very fine; -	+ = heavy (more <u>Secondary II</u> Water-S 4A, ar Drainage Dry-Sea Saturatio Geomor Shallow	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3)	equired) MLRA 1, 2,
Type: Depth (inches): emarks: S = IYDROLOGY retland Hydrology rimary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits (	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5)		eck all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	ed Leaves (B9) <b>(exca and 4B)</b> 311) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; - ept MLRA ing Roots (C3)	+ = heavy (more <u>Secondary In</u> Water-S 4A, an Drainage Dry-Sea Saturation Geomor Shallow FAC-Ne	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>1</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5)	equired) //LRA 1, 2, //agery (C9)
Type: Depth (inches): emarks: S = IYDROLOGY /etland Hydrology rimary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits (I Surface Soil Cr	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6)	e required; ch	eck all that apply) Water-Stain <b>1, 2, 4A</b> , a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves (B9) <b>(exce</b> and 4B) 311) Intebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; - ept MLRA ing Roots (C3)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised A	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //agery (C9)
Type: Depth (inches): emarks: S = IYDROLOGY fetland Hydrolog rimary Indicators ( Surface Water High Water Tata Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits (I Surface Soil Cr Inundation Visil	= sand; Si = SiL y Indicators: (minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial Im	e required; ch	eck all that apply) Water-Stain <b>1, 2, 4A</b> , a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves (B9) <b>(exca and 4B)</b> 311) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; - ept MLRA ing Roots (C3)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised A	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>1</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5)	equired) //LRA 1, 2, //agery (C9)
Type: Depth (inches): emarks: S = <b>YDROLOGY</b> <b>retland Hydrology</b> rimary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits (I Surface Soil Cr Inundation Visil Sparsely Veget	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial Im tated Concave	e required; ch	eck all that apply) Water-Stain <b>1, 2, 4A</b> , a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves (B9) <b>(exce</b> and 4B) 311) Intebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; - ept MLRA ing Roots (C3)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised A	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //agery (C9)
Type: Depth (inches): emarks: S = <b>YDROLOGY</b> <b>retland Hydrology</b> rimary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits (I Surface Soil Cr Inundation Visil Sparsely Veget	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial Im tated Concave	e required; ch	eck all that apply) Water-Stain <b>1, 2, 4A</b> , a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves (B9) <b>(exce</b> and 4B) 311) Intebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; - ept MLRA ing Roots (C3)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised A	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //agery (C9)
Type: Depth (inches): emarks: S = IVDROLOGY retland Hydrology rimary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits ( Surface Soil Cr Inundation Visil Sparsely Veget	= sand; Si = SiL y Indicators: (minimum of on (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial Im tated Concave	e required; ch agery (B7) Surface (B8)	eck all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(exce</b> and 4B) 311) artebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; - ept MLRA ing Roots (C3)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised A	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //agery (C9)
Depth (inches): emarks: S = IYDROLOGY Iveland Hydrology rimary Indicators ( Surface Water High Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits (I Surface Soil Cr Inundation Visil	= sand; Si = SiL y Indicators: (minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) rust (B4) B5) racks (B6) ible on Aerial Im tated Concave s: sent? Ye	e required; ch agery (B7) Surface (B8)	eck all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(exce</b> and 4B) 311) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S tressed Plants (D1) ( ain in Remarks)	vf = very fine; - ept MLRA ing Roots (C3)	+ = heavy (more <u>Secondary In</u> Water-S 4A, an Dry-Sea Dry-Sea Saturation Geomor Shallow FAC-Ne Raised A Frost-He	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, // nagery (C9) R A)
Type: Depth (inches): emarks: S = IYDROLOGY /etland Hydrology rimary Indicators ( Surface Water Tat Saturation (A3) Water Marks (E Sediment Depo Drift Deposits ( Algal Mat or Cr Iron Deposits (I Surface Soil Cr Inundation Visil Sparsely Veget ield Observations	= sand; Si = SiL y Indicators: (minimum of on- (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) B5) racks (B6) ible on Aerial Im- tated Concave s: sent? Ye ent? Ye	e required; ch agery (B7) Surface (B8) s	eck all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(exce</b> and 4B) 311) Intebrates (B13) Ilfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduced Iron (C4) Reduction in Tilled S itressed Plants (D1) ( ain in Remarks) Depth (inches):	vf = very fine; - ept MLRA ing Roots (C3) ioils (C6) (LRR A)	+ = heavy (more <u>Secondary In</u> Water-S 4A, an Dry-Sea Dry-Sea Saturation Geomor Shallow FAC-Ne Raised A Frost-He	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>I</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) son Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b> pave Hummocks (D7)	equired) //LRA 1, 2, // nagery (C9) R A)

Project/Site: Burlington Creek Forest OHV	/ Delineation	City/County:	Portland / Mu	Itnomah	Sampling Dat	te: 8/29/202	1
Applicant/Owner: Metro				State: OR	Samplin	g Point:	SP2
Investigator(s): C. Moller		Section,	Township, Rang	ge: Sec. 20, T. 2N, R. 1	W		
Landform (hillslope, terrace, etc.): Hillslope			Local relief	(concave, convex, none):	Concave	Slope (%):	50
Subregion (LRR): A, Northwest Forests and	Coast	Lat: 45.642581	 Lor	ng: -122.845550	Datu	m: WGS 198	34
	loam, 30 to 60 perc	ent slopes	_		classification:		
Are climatic / hydrologic conditions on the site	· · ·	•	Ye		-	plain in Rem	narks)
Are Vegetation ,Soil	, or Hydrology	significantly of	disturbed?	Are "Normal Circumstan	ces" present?	Yes X	No
Are Vegetation ,Soil	, or Hydrology	naturally prot	olematic? (	If needed, explain any a	answers in Rem		
SUMMARY OF FINDINGS - Attack	site map show	wing sampling	point locati	ons, transects, in	portant fea	atures, etc	с.
Hydrophytic Vegetation Present?	Yes	No X					
Hydric Soil Present?	Yes	No X	Is the Samp	led Area			
Wetland Hydrology Present?	Yes	No X	within a We	tland? Yes	No	X	
Precipitation prior to fieldwork: None Remarks:							
VEGETATION				-			
	Absolute	Dominant	Indicator	Dominance Test w	orksheet:		
<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominan	t Species		
1. Acer macrophyllum	60%	Yes	FACU	That Are OBL, FAC	N, or FAC:	2	(A)
<sup>2.</sup> Alnus rubra	10%	No	FAC				
3.				Total Number of Dor	minant		
4.				Species Across All S	Strata:	4	(B)
	70%	= Total Cover			-		• •
Sapling/Shrub Stratum (Plot size: <u>10'</u>	<u>r_</u> )			Percent of Dominan	t Species		
1. Acer circinatum	20%	Yes	FAC	That Are OBL, FAC	N or FAC <sup>.</sup>	50%	(A/B)
2. Rubus spectabilis	20%	Yes	FAC	Prevalence Index w			(,,,_)
3.				Total % Cover		by:	
4.			·	OBL species	0 x 1 =	0	
5.			·	FACW species	0 x 2 =	0	
	40%	= Total Cover			$\frac{0}{50} \times 3 =$	150	
Herb Stratum (Plot size: <u>5' r</u> )	4078			· · · ·	<u>30 x 8</u> 85 x 4 =	340	
	050/		FACU	UPL species			
1. Polystichum munitum	25%	Yes	FACU		0 x 5 =	0	(P)
2			<u> </u>	Prevalence Inde	1 <u>35</u> (A)	490 3.63	(B)
3		·					
4.			<u> </u>	Hydrophytic Veget			
5.		·		1 - Rapid Test fo		√egetation	
6.				2 - Dominance 1			
7		·		3 - Prevalence I			
8		. <u> </u>		4 - Morphologica	•	· ·	
9				data in Rema	arks or on a sep	parate sheet)	)
10				5 - Wetland Non	-Vascular Plan	ts <sup>1</sup>	
11		. <u> </u>		Problematic Hyd	Irophytic Veget	ation <sup>1</sup> (Expla	iin)
Woody Vine Stratum (Plot size: 10'	<u>25%</u> <u>r</u> )	= Total Cover		<sup>1</sup> Indicators of hydric be present.	soil and wetlan	d hydrology	must
1							
2		·		Hydrophytic			
	0%	= Total Cover		Vegetation	Yes	No <u>X</u>	-
% Bare Ground in Herb Stratum 759	<u>//</u>			Present?			
Remarks:				Entere	ed by: <u>clm</u>	QC by: cmw	V

					atures			
(inches)	Color (moist	) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark
0-9	10YR 3/3	100					SiCL	dry
9-20+	10YR 5/3	100					SiL	dry
	_							
			_					
		-						
		-	_					
			_					<u> </u>
vpe: C=Concen	ntration D=Der	letion RM=Rec	luced Matrix CS=Co		and Grains	<sup>2</sup> l ocation: Pl =	Pore Lining, M=Matr	
			s, unless otherwis				or Problematic Hydr	
Histosol (A1)			Sandy Redox				ick (A10)	
							. ,	
Histic Epipedo			Stripped Matr	( )			ent Material (TF2)	·E40)
Black Histic (A				/ Mineral (F1) <b>(exce</b>			allow Dark Surface (T	F12)
Hydrogen Sul			Loamy Gleye			Other (E	xplain in Remarks)	
·	ow Dark Surfac	;e (A11)	Depleted Mat	rix (F3)		31 11 1	<b>r</b> 1	
Thick Dark Su	urface (A12)		Redox Dark S				f hydrophytic vegetati	
Sandy Mucky	/ Mineral (S1)		Depleted Dar	k Surface (F7)		wetland hy	drology must be pres	ent,
Sandy Gleyed	d Matrix (S4)		Redox Depre	ssions (F8)		unless dist	urbed or problematic.	
Type: Depth (inches): emarks: S		}iLt; C = clay; L	= loam or loamy; cc	= coarse; f = fine;		ydric Soil Pres	sent? Yes e clay); - = light (less o	No X
Type: Depth (inches): emarks: S YDROLOGY	(		= loam or loamy; cc	9 = coarse; f = fine;		•		
Type: Depth (inches): emarks: S YDROLOGY /etland Hydrolog	f ogy Indicators		= loam or loamy; cc eck all that apply)	o = coarse; f = fine;		- = heavy (more	e clay); - = light (less o	clay)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators	f ogy Indicators s (minimum of e		eck all that apply)		vf = very fine; +	- = heavy (more Secondary Ir	e clay); - = light (less of the second se	clay) equired)
Type: Depth (inches): emarks: S YDROLOGY /etland Hydrolog /imary Indicators Surface Wate	<b>f</b> pgy Indicators s (minimum of e er (A1)		eck all that apply)	d Leaves (B9) <b>(exc</b>	vf = very fine; +	- = heavy (more Secondary Ir	e clay); - = light (less o ndicators (2 or more r tained Leaves (B9) ( <b>N</b>	clay) equired)
Type: Depth (inches): emarks: S YDROLOGY fetland Hydrolo rimary Indicators Surface Wate High Water Ta	<b>f</b> ogy Indicators s (minimum of e er (A1) able (A2)		eck all that apply) Water-Stained 1, 2, 4A, an	d Leaves (B9) <b>(exc</b> n <b>d 4B)</b>	vf = very fine; +	- = heavy (more Secondary Ir Water-Si 4A, ar	e clay); - = light (less o ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> )	clay) equired)
Type: Depth (inches): emarks: S YDROLOGY Vetland Hydrolo rimary Indicators Surface Wate High Water Ta Saturation (A	<b>f</b> ogy Indicators s (minimum of d er (A1) able (A2) 3)		eck all that apply) Water-Stained 1, 2, 4A, ar Salt Crust (B1	d Leaves (B9) <b>(exc</b> <b>nd 4B)</b> 11)	vf = very fine; +	- = heavy (more Secondary Ir Water-S 4A, ar	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10)	equired) //LRA 1, 2,
Type: Depth (inches): emarks: S YDROLOGY fetland Hydrolo fimary Indicators Surface Wate High Water Ta Saturation (A Water Marks	<b>f</b> ogy Indicators s (minimum of e er (A1) able (A2) 3) (B1)		eck all that apply) Water-Stained <b>1, 2, 4A, a</b> Salt Crust (B <sup>1</sup> Aquatic Invert	d Leaves (B9) <b>(exc</b> n <b>d 4B)</b> I1) tebrates (B13)	vf = very fine; +	Secondary Ir <u>Secondary Ir</u> Water-Si <b>4A, ar</b> Drainage Dry-Sea:	e clay); - = light (less o ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2)	equired) ////////////////////////////////////
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolog imary Indicators Surface Wate High Water Ta Saturation (A Water Marks Sediment Dep	<b>f</b> ogy Indicators s (minimum of d er (A1) able (A2) (3) (B1) posits (B2)		eck all that apply) Water-Stained 1, 2, 4A, ar Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul	d Leaves (B9) <b>(exc</b> an <b>d 4B)</b> 11) tebrates (B13)	vf = very fine; +	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Seat Saturatic	e clay); - = light (less o ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In	equired) ////////////////////////////////////
Type: Depth (inches): emarks: S IYDROLOGY /etland Hydrolog /etland Hydrolog /etland Hydrolog /etland Hydrolog /etland Hydrolog /etland Hydrolog /surface Wate 	y Indicators s (minimum of d er (A1) Table (A2) (B1) posits (B2) s (B3)		eck all that apply) Water-Stainer <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz	d Leaves (B9) <b>(exc</b> n <b>d 4B)</b> 11) tebrates (B13) ifide Odor (C1) zospheres along Liv	vf = very fine; +	Secondary Ir <u>Secondary Ir</u> Water-Si <b>4A, ar</b> Drainage Dry-Sea: Saturatic Geomory	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2)	equired) ////////////////////////////////////
Type: Depth (inches): emarks: S IYDROLOGY fetland Hydrolog rimary Indicators Surface Wate High Water Ta Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C	gy Indicators s (minimum of a er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4)		eck all that apply) Water-Stainer <b>1, 2, 4A, ar</b> Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F	d Leaves (B9) <b>(exc</b> <b>nd 4B)</b> I1) tebrates (B13) ifide Odor (C1) cospheres along Liv Reduced Iron (C4)	vf = very fine; + ept MLRA	Secondary Ir <u>Secondary Ir</u> Water-St <b>4A, ar</b> Drainage Dry-Seas Saturatio Geomory Shallow	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3)	equired) ////////////////////////////////////
Type: Depth (inches): emarks: S IVDROLOGY retland Hydrolog rimary Indicators Surface Wate High Water Ta Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits	<b>f</b> <b>bgy Indicators</b> <b>s</b> (minimum of et er (A1) Table (A2) (3) (B1) posits (B2) <b>s</b> (B3) Crust (B4) <b>b</b> (B5)		eck all that apply) Water-Stained <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F	d Leaves (B9) <b>(exc</b> <b>nd 4B)</b> I1) tebrates (B13) fide Odor (C1) cospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; + ept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Seat Saturatic Geomory Shallow FAC-Net	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5)	equired) //LRA 1, 2, //agery (C9)
Type: Depth (inches): emarks: S IYDROLOGY /etland Hydrolog rimary Indicators Surface Wate High Water Ta Saturation (A Water Marks Saturation (A Water Marks Saturation (A Unift Deposits Algal Mat or C Iron Deposits Surface Soil (	y Indicators s (minimum of d er (A1) Table (A2) (B1) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6)	one required; ch	eck all that apply) Water-Stainer <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Stunted or Sta	d Leaves (B9) <b>(exc</b> nd <b>4B)</b> 11) tebrates (B13) fide Odor (C1) cospheres along Liv Reduced Iron (C4) Reduction in Tilled S ressed Plants (D1)	vf = very fine; + ept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Sea: Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, // nagery (C9)
Type: Depth (inches): emarks: S IYDROLOGY fetland Hydrolog rimary Indicators Surface Wate High Water Ta Saturation (A Water Marks Saturation (A Unift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	<b>f</b> <b>bgy Indicators</b> <b>a</b> (minimum of d er (A1) Table (A2) (B1) posits (B2) <b>b</b> (B3) Crust (B4) <b>b</b> (B5) Cracks (B6) isible on Aerial	one required; ch	eck all that apply) Water-Stainer <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Stunted or Sta	d Leaves (B9) <b>(exc</b> <b>nd 4B)</b> I1) tebrates (B13) fide Odor (C1) cospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; + ept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Sea: Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5)	equired) //LRA 1, 2, // nagery (C9)
Type: Depth (inches): emarks: S YDROLOGY retland Hydrolog rimary Indicators Surface Wate High Water Ta Saturation (A Water Marks Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg	gy Indicators     s (minimum of e er (A1)     Table (A2)     3)     (B1)     posits (B2)     s (B3)     Crust (B4)     s (B5)     Cracks (B6)     isible on Aerial getated Concav	one required; ch	eck all that apply) Water-Stainer <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Stunted or Sta	d Leaves (B9) <b>(exc</b> nd <b>4B)</b> 11) tebrates (B13) fide Odor (C1) cospheres along Liv Reduced Iron (C4) Reduction in Tilled S ressed Plants (D1)	vf = very fine; + ept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Sea: Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, // nagery (C9)
Type: Depth (inches): emarks: S <b>YDROLOGY</b> <b>retland Hydrolog</b> <b>rimary Indicators</b> Surface Wate High Water Ta Saturation (A3 Water Marks Saturation (A4 Water Marks Saturation (A5 Water Marks Surface Soil C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg <b>reld Observation</b>	gy Indicators     s (minimum of elements)     able (A2)     (A1)     able (A2)     (B1)     posits (B2)     s (B3)     Crust (B4)     s (B5)     Cracks (B6)     isible on Aerial     getated Concav  ns:	one required; ch Imagery (B7) e Surface (B8)	eck all that apply) Water-Stained <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Stunted or Sta Other (Explain	d Leaves (B9) <b>(exc</b> nd <b>4B)</b> 11) tebrates (B13) fide Odor (C1) cospheres along Liv Reduced Iron (C4) Reduction in Tilled S ressed Plants (D1)	vf = very fine; + ept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Sea: Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, // nagery (C9)
Type: Depth (inches): emarks: S <b>YDROLOGY</b> <b>retland Hydrolog</b> <b>rimary Indicators</b> Surface Water High Water Ta Saturation (AC Water Marks Saturation (AC Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg Burface Water Pri	yey Indicators s (minimum of e er (A1) Table (A2) 3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial getated Concav ins: resent?	one required; ch	eck all that apply) Water-Stained <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain	d Leaves (B9) <b>(exc</b> <b>nd 4B)</b> (11) (abbrates (B13) (abbrates (B13)) (abbrates (B13)) (abbra	vf = very fine; + ept MLRA fing Roots (C3) Soils (C6) (LRR A)	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Sea: Saturatic Geomory Shallow FAC-Nei Raised A Frost-Hei	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b> eave Hummocks (D7)	equired) //LRA 1, 2, // nagery (C9) R A)
Type: Depth (inches): emarks: S <b>YDROLOGY</b> <b>retland Hydrolog</b> <b>rimary Indicators</b> <b>Surface Wate</b> High Water Ta Saturation (AC Water Marks Saturation (AC Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg <b>ield Observation</b> Surface Water Pri	( yogy Indicators s (minimum of of a (A1) Table (A2) 3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial yetated Concav ins: resent?	one required; ch Imagery (B7) e Surface (B8)	eck all that apply) Water-Stained <b>1, 2, 4A, ar</b> Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain No X	d Leaves (B9) <b>(exc</b> <b>nd 4B)</b> (11) (11) (11) (11) (12) (12) (12) (13) (13) (14) (14) (14) (14) (14) (14) (14) (14	vf = very fine; + ept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Sea: Saturatic Geomory Shallow FAC-Nei Raised A Frost-Hei	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, // nagery (C9) R A)
Depth (inches): emarks: S IYDROLOGY /etland Hydrolog rimary Indicators Surface Wate High Water Ta Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	( yoy Indicators s (minimum of or a (A1) a ble (A2) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial yetated Concav ons: resent? sent?	one required; ch Imagery (B7) e Surface (B8) Yes	eck all that apply) Water-Stained <b>1, 2, 4A, ar</b> Salt Crust (B <sup>1</sup> Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain	d Leaves (B9) <b>(exc</b> <b>nd 4B)</b> (11) (abbrates (B13) (abbrates (B13)) (abbrates (B13)) (abbra	vf = very fine; + ept MLRA fing Roots (C3) Soils (C6) (LRR A)	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Sea: Saturatic Geomory Shallow FAC-Nei Raised A Frost-Hei	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b> eave Hummocks (D7)	equired) //LRA 1, 2, // nagery (C9) R A)

Project/Site: Burlington Creek Forest OHW	Delineation	City/County:	Portland / Mu	Iltnomah	Sampling Dat	te: 8/29/2021	
Applicant/Owner: Metro				State: OR	Sampling	g Point:	SP3
Investigator(s): C. Moller		Section,	Township, Rang	ge: Sec. 20, T. 2N, R. 1	W		
Landform (hillslope, terrace, etc.): Hillslope			Local relief	(concave, convex, none):	Concave	Slope (%):	60
Subregion (LRR): A, Northwest Forests and C	Coast	Lat: 45.641511	 Lor	ng: -122.846356	Datu	m: WGS 1984	4
Soil Map Unit Name: 17E: Goble silt l	oam, 30 to 60 perc	ent slopes	_	NWI	classification:		
Are climatic / hydrologic conditions on the site t		•	Ye			plain in Rema	arks)
Are Vegetation ,Soil	, or Hydrology	significantly o	disturbed? A	Are "Normal Circumstan	ces" present?	Yes X	No
Are Vegetation ,Soil	, or Hydrology	naturally prol	blematic? (	If needed, explain any a	answers in Rem	narks.)	
SUMMARY OF FINDINGS – Attach	site map show	wing sampling	point locati	ons, transects, in	nportant fea	itures, etc	-
Hydrophytic Vegetation Present?	Yes	No <b>X</b>					
Hydric Soil Present?	Yes	No X	Is the Samp	led Area			
Wetland Hydrology Present?	Yes	No <b>X</b>	within a We	tland? Yes	No	X	
Precipitation prior to fieldwork: None Remarks:							
VEGETATION							
<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	Absolute <u>% Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test we Number of Dominan			
<ol> <li><u>Acer macrophyllum</u></li> <li>2.</li> </ol>	85%	Yes	FACU	That Are OBL, FAC	N, or FAC:	2	(A)
3.							
4.		·		Total Number of Dor		_	()
+				Species Across All S	Strata:	5	(B)
Sonling/Shrub Stratum (Dist size: 10)	85%	= Total Cover					
Sapling/Shrub Stratum (Plot size: 10'	<u> </u>			Percent of Dominant	t Species		
1. Acer circinatum	25%	Yes	FAC	That Are OBL, FAC		<u>40%</u>	(A/B)
2. Rubus spectabilis	25%	Yes	FAC	Prevalence Index w		by:	
3.				Total % Cover			—
4.				OBL species	<u>0</u> x 1 =	0	
5				FACW species	0 x 2 =	0	
	50%	= Total Cover		· · · ·	55 x 3 =	165	
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				· ·	125 x 4 =	500	
1. Tellima grandiflora	25%	Yes	FACU	UPL species	0 x 5 =	0	
2. Polystichum munitum	15%	Yes	FACU		180 (A)	665	(B)
3. <u>Blechnum spicant</u>	5%	No	FAC	Prevalence Inde	ex = B/A =	<u>3.69</u>	
4				Hydrophytic Vegeta	ation Indicator	'S:	
5		.    . <u> </u>		1 - Rapid Test fo	or Hydrophytic \	Vegetation	
6				2 - Dominance T	⊺est is >50%		
7				3 - Prevalence In	ndex is ≤3.0 <sup>1</sup>		
8.				4 - Morphologica	al Adaptations <sup>1</sup>	(Provide supp	porting
9.				data in Rema	arks or on a sep	arate sheet)	
10.				5 - Wetland Non	I-Vascular Plan	ts <sup>1</sup>	
11.				Problematic Hyd	drophytic Veget	ation <sup>1</sup> (Explai	n)
Woody Vine Stratum (Plot size: 10'	45% r)	= Total Cover		<sup>1</sup> Indicators of hydric be present.	soil and wetlan	d hydrology n	nust
1.				1 h			
2	0%	= Total Cover		Hydrophytic Vegetation	Yes	No <u>X</u>	
% Bare Ground in Herb Stratum 55%	D			Present?			
Remarks:				Entere	ed by: <u>clm</u>	QC by: cmw	

Depth	Matri	X		Redox Fe	atures			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remar
0-3	10YR 3/4	100					SiL	dry
3-12	10YR 3/4	95	10YR 3/6	5	С	М	SiL	dry
					·			
							·	
						21		
ype: C=Concentration /dric Soil Indication				overed or Coated Sa se noted.)	and Grains.		Pore Lining, M=Matr	
Histosol (A1)			Sandy Redo	(S5)		2 cm Mu	ick (A10)	
Histic Epipedon	n (A2)		 Stripped Mat				ent Material (TF2)	
Black Histic (A3	3)			y Mineral (F1) <b>(exce</b>	pt MLRA 1)		allow Dark Surface (1	F12)
Hydrogen Sulfic	,			ed Matrix (F2)	- /		xplain in Remarks)	
Depleted Below	v Dark Surface (A	A11)	Depleted Ma	trix (F3)				
Thick Dark Surf	face (A12)		Redox Dark	Surface (F6)		<sup>3</sup> Indicators o	f hydrophytic vegetat	ion and
Sandy Mucky M	/lineral (S1)		Depleted Da	rk Surface (F7)		wetland hy	drology must be pres	sent,
Sandy Gleyed I	Matrix (S4)		Redox Depre	essions (F8)		unless dist	urbed or problematic	
Type: Depth (inches): emarks: S =	= sand; Si = SiLt;	C = clay; L =	loam or loamy; c	o = coarse; f = fine; v		lydric Soil Pres + = heavy (more	sent? Yes e clay); - = light (less	No X
Type: Depth (inches): emarks: S = lock refusal at 12 ir	= sand; Si = SiLt; nches.	C = clay; L =	loam or loamy; c	o = coarse; f = fine; v		-		
Type: Depth (inches): emarks: S = ock refusal at 12 ir YDROLOGY /etland Hydrology	= sand; Si = SiLt; nches. <b>y Indicators:</b>			o = coarse; f = fine; v		+ = heavy (more		clay)
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology	= sand; Si = SiLt; nches. <b>y Indicators:</b> minimum of one		ck all that apply)	o = coarse; f = fine; v d Leaves (B9) <b>(exce</b>	vf = very fine;	+ = heavy (more <u>Secondary I</u>	e clay); - = light (less	clay)
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (i	= sand; Si = SiLt; nches. <b>y Indicators:</b> <u>minimum of one</u> (A1)		ck all that apply)	d Leaves (B9) <b>(exc</b> e	vf = very fine;	+ = heavy (more <u>Secondary I</u> Water-S	e clay); - = light (less	clay)
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (in Surface Water Tab High Water Tab Saturation (A3)	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ple (A2)		<u>ck all that apply)</u> Water-Staine	d Leaves (B9) <b>(exc</b> o <b>nd 4B)</b>	vf = very fine;	+ = heavy (more <u>Secondary Ir</u> Water-S 4A, ar	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>I</b> n <b>d 4B)</b> e Patterns (B10)	 clay) <u>required)</u> MLRA 1, 2,
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (in Surface Water (in High Water Tab Saturation (A3) Water Marks (B	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) 31)		<u>ck all that apply)</u> Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver	d Leaves (B9) <b>(exce nd 4B)</b> 11) tebrates (B13)	vf = very fine;	+ = heavy (more <u>Secondary Ir</u> Water-S 4A, ar Drainage Dry-Sea	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>I</b> n <b>d 4B)</b> e Patterns (B10) son Water Table (C2	<u>required)</u> MLRA 1, 2,
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (i Surface Water (i High Water Tab Saturation (A3) Water Marks (B Sediment Depo	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ble (A2) 31) ssits (B2)		<u>ck all that apply)</u> Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su	d Leaves (B9) <b>(exca</b> <b>nd 4B)</b> 11) tebrates (B13) Ifide Odor (C1)	vf = very fine; ·	+ = heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>1</b> n <b>d 4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In	<u>required)</u> MLRA 1, 2,
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (i Surface Water (i High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (i	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) 31) osits (B2) B3)		<u>ck all that apply)</u> Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi	d Leaves (B9) <b>(exce nd 4B)</b> 11) tebrates (B13) Ifide Odor (C1) zospheres along Liv	vf = very fine; ·	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio )Geomore	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>f</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2)	<u>required)</u> MLRA 1, 2,
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY fetland Hydrology rimary Indicators (in Surface Water (in Surface Water (in Surface Water (in Surface Water (in Saturation (A3) Water Marks (Ba Sediment Depo Drift Deposits (in Algal Mat or Critical (in the second Algal Mat or Critical (in the second Saturation (in the second Mater (in the second Mat	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) 31) osits (B2) B3) ust (B4)		<u>ck all that apply)</u> Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of	d Leaves (B9) <b>(excd nd 4B)</b> 11) tebrates (B13) Ifide Odor (C1) zospheres along Liv Reduced Iron (C4)	vf = very fine; ept MLRA	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio ) Geomor Shallow	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>1</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3)	<u>required)</u> MLRA 1, 2,
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (i Surface Water (i High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (i Algal Mat or Crit Iron Deposits (i	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ble (A2) 31) bsits (B2) B3) ust (B4) B5)		<u>ck all that apply)</u> Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I	d Leaves (B9) <b>(exco nd 4B)</b> 11) tebrates (B13) lfide Odor (C1) zospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; · ept MLRA ing Roots (C3 coils (C6)	+ = heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio ) Geomor Shallow FAC-Net	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>1</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5)	required) MLRA 1, 2, ) nagery (C9)
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (i Surface Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (I Algal Mat or Cru Iron Deposits (E Surface Soil Cru	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) 31) osits (B2) B3) ust (B4) B5) racks (B6)	required; che	ck all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron F Stunted or St	d Leaves (B9) <b>(exce</b> <b>nd 4B)</b> 11) tebrates (B13) lfide Odor (C1) zospheres along Liv Reduced Iron (C4) Reducetion in Tilled S tressed Plants (D1) (	vf = very fine; · ept MLRA ing Roots (C3 coils (C6)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Nei Raised A	e clay); - = light (less <u>ndicators (2 or more r</u> tained Leaves (B9) ( <b>f</b> <b>nd 4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b>	required) MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY fetland Hydrology rimary Indicators (in Surface Water (in High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (I Algal Mat or Cru Iron Deposits (E Surface Soil Cru	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) (A1) osits (B2) (B3) ust (B4) (B5) (acks (B6) ble on Aerial Ima	required; che	ck all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron F Stunted or St	d Leaves (B9) <b>(exco nd 4B)</b> 11) tebrates (B13) lfide Odor (C1) zospheres along Liv Reduced Iron (C4) Reduction in Tilled S	vf = very fine; · ept MLRA ing Roots (C3 coils (C6)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Nei Raised A	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>1</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5)	required) MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): emarks: S = ock refusal at 12 ir IYDROLOGY /etland Hydrology rimary Indicators (i Surface Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (I Algal Mat or Cru Iron Deposits (E Surface Soil Cru Inundation Visit Sparsely Veget	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) (A1) obits (B2) B3) ust (B4) B5) ust (B4) B5) racks (B6) ble on Aerial Ima tated Concave Si	required; che	ck all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron F Stunted or St	d Leaves (B9) <b>(exce</b> <b>nd 4B)</b> 11) tebrates (B13) lfide Odor (C1) zospheres along Liv Reduced Iron (C4) Reducetion in Tilled S tressed Plants (D1) (	vf = very fine; · ept MLRA ing Roots (C3 coils (C6)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Nei Raised A	e clay); - = light (less <u>ndicators (2 or more r</u> tained Leaves (B9) ( <b>f</b> <b>nd 4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b>	required) MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): emarks: S = ock refusal at 12 in IYDROLOGY /etland Hydrology rimary Indicators (in Surface Water (in High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (I Algal Mat or Crit Iron Deposits (I Surface Soil Crit Surface Soil Crit Inundation Visit Sparsely Veget	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ble (A2) 31) ble (A2) 33) ust (B4) B5) vacks (B6) ble on Aerial Ima tated Concave So s:	required; che gery (B7) urface (B8)	ck all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron F Stunted or St	d Leaves (B9) <b>(exce</b> <b>nd 4B)</b> 11) tebrates (B13) lfide Odor (C1) zospheres along Liv Reduced Iron (C4) Reducetion in Tilled S tressed Plants (D1) (	vf = very fine; · ept MLRA ing Roots (C3 coils (C6)	+ = heavy (more <u>Secondary II</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Nei Raised A	e clay); - = light (less <u>ndicators (2 or more r</u> tained Leaves (B9) ( <b>f</b> <b>nd 4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b>	required) MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): Semarks: S = Sock refusal at 12 in <b>IYDROLOGY</b> Vetland Hydrology rimary Indicators (in Surface Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (I Algal Mat or Cru Iron Deposits (E Surface Soil Cru Inundation Visit Sparsely Veget ield Observations	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) (A1) obits (B2) B3) ust (B4) B5) acks (B6) ble on Aerial Ima tated Concave Si s: sent? Yes	required; che gery (B7) urface (B8)	ck all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or St Other (Expla	d Leaves (B9) <b>(exco nd 4B)</b> 11) tebrates (B13) lfide Odor (C1) zospheres along Liv Reduced Iron (C4) Reduction in Tilled S tressed Plants (D1) ( in in Remarks)	vf = very fine; · ept MLRA ing Roots (C3 coils (C6)	+ = heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Saturatio Shallow FAC-Ner Raised A Frost-He	e clay); - = light (less <u>ndicators (2 or more r</u> tained Leaves (B9) ( <b>f</b> <b>nd 4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b>	required) MLRA 1, 2, ) nagery (C9)
Depth (inches): Remarks: S = Rock refusal at 12 in <b>HYDROLOGY</b> Vetland Hydrology Primary Indicators (in Surface Water Table Surface Water Table Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (in Algal Mat or Cru Iron Deposits (in Surface Soil Cru Surface Soil Cru Inundation Visit	= sand; Si = SiLt; nches. y Indicators: minimum of one (A1) ole (A2) (A1) ole (A2) (A1) (A1) (A1) (A1) (A1) (A1) (A1) (A1	required; che gery (B7) urface (B8)	ck all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron F Stunted or Si Other (Expla	d Leaves (B9) <b>(exce</b> <b>nd 4B)</b> 11) tebrates (B13) Ifide Odor (C1) zospheres along Liv Reduced Iron (C4) Reduction in Tilled S tressed Plants (D1) ( in in Remarks) Depth (inches):	ept MLRA	+ = heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Saturatio Shallow FAC-Ner Raised A Frost-He	e clay); - = light (less ndicators (2 or more r tained Leaves (B9) ( <b>f</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b> eave Hummocks (D7)	required) MLRA 1, 2, ) nagery (C9)

Project/Site: Burlington Creek Forest OH	N Delineation	City/County:	Portland / Mu	Iltnomah	Sampling Dat	te: 8/29/202	1
Applicant/Owner: Metro				State: OR	Samplin	g Point:	SP4
Investigator(s): C. Moller		Section,	Township, Rang	ge: Sec. 20, T. 2N, R. 1	W		
Landform (hillslope, terrace, etc.): Hillslope			Local relief	(concave, convex, none):	Concave	Slope (%):	50
Subregion (LRR): A, Northwest Forests and	Coast	Lat: 45.639436	 Lor	ng: -122.845313	Datu	m: WGS 198	34
Soil Map Unit Name: 17E: Goble silt	loam, 30 to 60 perc	ent slopes	_	NWI	classification:		
Are climatic / hydrologic conditions on the site			Ye		-	plain in Rem	arks)
Are Vegetation ,Soil	, or Hydrology	significantly o	disturbed?	Are "Normal Circumstan	ces" present?	Yes X	No
Are Vegetation ,Soil	, or Hydrology	naturally prot	olematic? (	If needed, explain any a	answers in Rem	narks.)	
SUMMARY OF FINDINGS – Attac	h site map show	wing sampling	point locati	ons, transects, in	nportant fea	atures, etc	).
Hydrophytic Vegetation Present?	Yes	No <b>X</b>					
Hydric Soil Present?	Yes	No X	Is the Samp	led Area			
Wetland Hydrology Present?	Yes	No X	within a We	tland? Yes	No	X	
Precipitation prior to fieldwork: None Remarks:							
VEGETATION							
<u>Tree Stratum</u> (Plot size: 30' r )	Absolute	Dominant	Indicator	Dominance Test w			
	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominan	t Species		
1. Acer macrophyllum	30%	Yes	FACU	That Are OBL, FAC	N, or FAC:	2	(A)
2. Pseudotsuga menziesii	30%	Yes	FACU				
3				Total Number of Do	minant		
4.				Species Across All S	Strata:	5	(B)
	60%	= Total Cover					
Sapling/Shrub Stratum (Plot size: 10	<u>'r_</u> )			Percent of Dominan	t Species		
1. Rubus armeniacus	15%	Yes	FAC	That Are OBL, FAC	N, or FAC:	<u>40%</u>	(A/B)
2. Rubus spectabilis	15%	Yes	FAC	Prevalence Index v	vorksheet:		
3.				Total % Cover	of: Multiply I	oy:	_
4.				OBL species	0 x 1 =	0	
5.				FACW species	0 x 2 =	0	
	30%	= Total Cover		FAC species	30 x 3 =	90	
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				FACU species	65 x 4 =	260	
1. Polystichum munitum	5%	Yes	FACU	UPL species	0 x 5 =	0	
2.		·			95 (A)	350	(B)
3.				Prevalence Inde	ex = B/A =	3.68	
4.				Hydrophytic Veget	ation Indicator	rs:	
5.		· · · · · · · · · · · · · · · · · · ·		1 - Rapid Test fo			
6.		·		2 - Dominance		0	
7.		·		3 - Prevalence I			
8.		·		4 - Morphologica		(Provide sur	porting
9.		·		°	arks or on a sep	· ·	
10.		·		5 - Wetland Nor			
		·					in)
11				Problematic Hyd			,
Woody Vine Stratum (Plot size: 10	<u>5%</u>	= Total Cover		<sup>1</sup> Indicators of hydric be present.	soil and wetlan	u nyarology	must
1. 2.		·		Hydrophytic			
	0%	= Total Cover		Vegetation	Yes I	No X	
% Bare Ground in Herb Stratum 95				Present?			•
Remarks:					ed by: clm	QC by: cmw	
· · · · · · · · · · · · · · · · · · ·				Entor			

Index         Color (moist)         %         Type <sup>1</sup> Loc <sup>2</sup> Texture         Remark           0-8         107R 4/3         100	Depth	Matrix	<u>`</u>		Redox				
B-20+       10YR S/3       100       SiL       dry         B-20+       10YR S/3       100       SiL       dry         SiL       dry       dry       SiL       dry         SiL       dry       dry       dry       dry         Silac       dry       dry       dry       dry         dry       dry       dry       dry       dry         dry       dry       dry       dry       dry       dry	(inches) Colo	or (moist)	%	Color (moist	:) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark
pe: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         rdir S off Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solls*:         Halacia (A1)	0-8 10	)YR 4/3	100					vf SiL	dry
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histoca (A1)       Sandy Redox (S5)       2 cm Muck (A10)         Histic Epipadon (A2)       Stripped Matrix (S6)       2 cm Muck (A10)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (F12)         Other (Explain in Remarks)       Depleted Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation and         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         strictive Layer (if present):       Type:       No       X         Type:	8-20+ 10	)YR 5/3	100					SiL	dry
tric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histos Epipedon (A2)       Stripped Matrix (S6)									
http:       Soli Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solis <sup>3</sup> :         Histoc Epipedon (A2)       Stripped Matrix (S6)									
ric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosci (A1)									
tric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosc (A1)									
indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators (Applicable to all LRRs, unless otherwise noted.)         Histoc (A1)									-
this Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histoc Epipedon (A2)       Sandy Redox (S6)									
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histoc Epipedon (A2)       Sandy Redox (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Stripped Matrix (S6)	ne: C=Concentration	n D=Depletio	n RM=Reduc	ed Matrix CS=(		Sand Grains	<sup>2</sup> l ocation: Pl =	Pore Lining M=Matr	
Histosol (A1)	•							-	-
Histic Epipedon (A2)       Stripped Matrix (S6)       Red Parent Material (TF2)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Hydrogen Suffide (A4)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation and         Sandy Gleyed Matrix (S4)       Redox Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         strictive Layer (f present):       Type:       No       X         rept (inches):       Hydric Soil Present? Yes       No       X         marks:       S = sand; SI = SiLt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)         VEROLOGY         tutand Hydrology Indicators:         marks:       S = sand; SI = SiLt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)         Secondary Indicators (minimum of one required: check all that apply)         Surface Water (A1)       Water-Stained Leaves (B9) (wc.ept MLRA 1, 2, 4, and 4B)       4A, and 4B)		<b>V PP</b>						-	
Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Hydrogen Sulfide (A4)       Loamy Gleved Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       "Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F6)       "Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         Strictive Layer (If present):       Type:       Hydric Soil Present? Yes       No       X         Pepth (inches):       S = sand; Si = SiLL; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)         Proceed Water (A1)         Jeinfacetors (Iminimum of one required; check all that apply)       Secondary Indicators (2 or more required)         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       4A, and 4B)         Saturation (A3)       Sati Crust (B11)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (A2)         Saturation (A3)       Oxid/zed Rhizospheres along Living Roots (C3)       Geeomorphic Position (D2)		2)	_		. ,			. ,	
Hydrogen Sulfide (A4)      Loamy Gleyed Matrix (F2)      Other (Explain in Remarks)        Depleted Below Dark Surface (A11)      Depleted Matrix (F3)      Sindicators of hydrophytic vegetation and        Sandy Gleyed Matrix (S4)      Depleted Dark Surface (F7)       wetland hydrology must be present,        Sandy Gleyed Matrix (S4)      Depleted Dark Surface (F7)       wetland hydrology must be present,        Sandy Gleyed Matrix (S4)      Redox Depressions (F8)       unless disturbed or problematic.         strictive Layer (if present):		2)	-		( )	roomt MI DA 1)			
Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       3 <sup>1</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, and yetland hydrology for problematic.         Ype:       Hydric Soil Present?       Yes       No       X         VPROLOGY       Hydric Soil Present?       Yes       No       X         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)       Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         Surface Water (A1)       Water Stained Leaves (B13)       Drainage Patterns (B10)       Drainage Patterns (B10)         Surface Rize Site (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)       Oxidized Rizespheres along Living Roots (C3)       Geomorphic Position (D2)         Agal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)       FAC-Neutral Test (D5)         Surface Water Present?       Yes       No       X       Depth (inches):       >20         Indicators (B6)       Struted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LR A)			-			Cept WLRA I)			F12)
Thick Dark Surface (A12)       Redox Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation and         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         Strictive Layer (If present):       Type:       Hydric Soil Present?       Yes       No       X         marks:       S = sand; Si = SiLt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)         YDROLOGY         Water Ati At Apply Sand Carbon (C1)         Secondary Indicators (2 or more required)         Sufface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (mLRA 1, 2, 4A, and 4B)         Saturation (A3)       Saturation Visible on Aerial Imagery (C3)       Dry-Season Water Table (C2)         Sediment Deposits (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Orift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (03)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       Raised Ant Mounds (D6) (LRR A)         Iron Deposits (B5)       Recent Iron Reductin	_ , , , , , , , , , , , , , , , , , , ,	,					Other (E	xpiain in Remarks)	
	<u> </u>	`	11) _		. ,		31	· · · · · · · · · · · · · · · · · · ·	
Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         strictive Layer (if present):       Type:	_	. ,	-	Redox Dark	Surface (F6)				
Type:	_Sandy Mucky Mine	ral (S1)	-		. ,		wetland hy	drology must be pres	ent,
Type:	Sandy Gleyed Matr	ix (S4)	_	Redox Depr	essions (F8)		unless dist	urbed or problematic.	
Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)         High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       No       X       Depth (inches):       >20         Vater Table Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X         Includes capillary fringe)       Yes       No       X       Depth (inches):       >20       Yes       No	Depth (inches):	nd; Si = SiLt;	C = clay; L = I	oam or loamy; d	co = coarse; f = fin		-		
High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       _Salt Crust (B11)       _Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Ves       No       X         eld Observations:       Ves       No       X       Depth (inches):       >20         Yes       No       X       Depth (inches):       >20       Yes       No       X         Inductor Visible on Aerial Imagery       Yes       No       X       Depth (inches):       >20       Yes       No       X         Inductor Visible on Aerial Imager	Depth (inches): emarks: S = sar YDROLOGY		C = clay; L = I	oam or loamy; d	co = coarse; f = fin		-		
Saturation (A3)	Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Ind	dicators:			co = coarse; f = fin		- = heavy (more	e clay); - = light (less o	clay)
Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       No       X       Depth (inches):       >20         Vetart Table Present?       Yes       No       X       Depth (inches):       >20         Aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X         Includes capillary fringe)       No       X       Depth (inches):       >20       Yes       No       X	Depth (inches): marks: S = sar YDROLOGY etland Hydrology Ind mary Indicators (mini	dicators: mum of one r		k all that apply)		e; vf = very fine; +	- = heavy (more secondary Ir	e clay); - = light (less of the second secon	clay)
Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       No       X       Depth (inches):       20         Auter Table Present?       Yes       No       X       Depth (inches):       >20         Autration Present?       Yes       No       X       Depth (inches):       >20         Yes       No       X       Depth (inches):       >20       Yes       No       X         No       X       Depth (inches):       >20       Yes       No       X	Depth (inches):         Imarks:       S = sar         YDROLOGY         etland Hydrology Ind         mary Indicators (mini         Surface Water (A1)	dicators: mum of one r		<u>k all that apply)</u> Water-Stain	ed Leaves (B9) <b>(e</b> :	e; vf = very fine; +	- = heavy (more Secondary Ir	e clay); - = light (less o ndicators (2 or more r tained Leaves (B9) ( <b>N</b>	clay)
Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       No       X       Depth (inches):       >20         eld Observations:       Yes       No       X       Depth (inches):       >20         urface Water Present?       Yes       No       X       Depth (inches):       >20         aturation Present?       Yes       No       X       Depth (inches):       >20         reduces capillary fringe)       No       X       Depth (inches):       >20       Yes       No       X	Depth (inches): marks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A	dicators: mum of one r		<u>k all that apply)</u> Water-Stain <b>1, 2, 4A</b> ,	ed Leaves (B9) <b>(e</b> : <b>and 4B)</b>	e; vf = very fine; +	Secondary Ir Water-State	e clay); - = light (less o ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> )	clay)
Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       No       X       Depth (inches):         eld Observations:       No       X       Depth (inches):       Wetland Hydrology Present?         Yes       No       X       Depth (inches):       >20       Yes       No       X         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X	Depth (inches): marks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3)	dicators: mum of one r		<u>k all that apply)</u> Water-Stain <b>1, 2, 4A</b> , Salt Crust (I	ed Leaves (B9) <b>(e</b> : <b>and 4B)</b> 311)	e; vf = very fine; +	Secondary Ir Secondary Ir Water-St 4A, ar	e clay); - = light (less of adicators (2 or more r and Leaves (B9) ( <b>N</b> ad <b>4B</b> ) e Patterns (B10)	clay) equired) /ILRA 1, 2,
Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         eld Observations:       Inter Table Present?       Yes       No       X       Depth (inches):       Vestand Hydrology Present?         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X	Depth (inches):         Imarks:       S = sar         YDROLOGY         etland Hydrology Ind         mary Indicators (mini)         Surface Water (A1)         High Water Table (A)         Saturation (A3)         Water Marks (B1)	dicators: mum of one r A2)		<u>k all that apply)</u> Water-Stain <b>1, 2, 4A</b> , Salt Crust (I Aquatic Inve	ed Leaves (B9) <b>(e</b> <b>and 4B)</b> 311) ertebrates (B13)	e; vf = very fine; +	Secondary Ir <u>Secondary Ir</u> Water-St <b>4A, ar</b> Drainage Dry-Seas	e clay); - = light (less o ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2)	equired) //LRA 1, 2,
Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         eld Observations:       Inter Table Present?       Yes       No       X       Depth (inches):       Vestand Hydrology Present?         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X         Includes capillary fringe)       Yes       No       X       Depth (inches):       >20       Yes       No       X	Depth (inches):         Imarks:       S = sar         YDROLOGY         etland Hydrology Indicators (mini)         Surface Water (A1)         High Water Table (A)         Saturation (A3)         Water Marks (B1)         Sediment Deposits	dicators: mum of one r A2)		<u>k all that apply)</u> Water-Stain <b>1, 2, 4A</b> , Salt Crust (I Aquatic Inve Hydrogen S	ed Leaves (B9) <b>(e</b> : <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1)	e; vf = very fine; +	Secondary Ir <u>Secondary Ir</u> Water-Si <b>4A, ar</b> Drainage Dry-Seas Saturatic	a clay); - = light (less o adicators (2 or more r tained Leaves (B9) ( <b>N</b> ad <b>4B)</b> P Patterns (B10) son Water Table (C2) on Visible on Aerial In	equired) //LRA 1, 2,
Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Imagery (B7)       Depth (inches):       Imagery (B7)         eld Observations:       No       X       Depth (inches):       Imagery (B7)         vater Table Present?       Yes       No       X       Depth (inches):       >20         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X         ncludes capillary fringe)       No       X       Depth (inches):       >20       Yes       No       X	Depth (inches):         emarks:       S = sar         YDROLOGY         etland Hydrology Indicators (mini         Surface Water (A1)         High Water Table (A         Saturation (A3)         Water Marks (B1)         Sediment Deposits         Drift Deposits (B3)	dicators: mum of one r A2) (B2)		k all that apply) Water-Stain <b>1, 2, 4A</b> , Salt Crust (f Aquatic Inve Hydrogen S Oxidized Rh	ed Leaves (B9) <b>(e</b> : <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) uizospheres along	e; vf = very fine; + xcept MLRA Living Roots (C3)	Secondary Ir <u>Secondary Ir</u> Water-Si <b>4A, ar</b> Drainage Dry-Seat Saturatic Geomory	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2)	equired) //LRA 1, 2,
Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Yes       No       X         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)         eld Observations:       Yes       No       X         eld Observations:       Image: Concave Surface (B8)       Image: Concave Surface (B8)<	Depth (inches):         emarks:       S = sar         YDROLOGY         etland Hydrology Indicators (mini)         Surface Water (A1)         High Water Table (A)         Saturation (A3)         Water Marks (B1)         Sediment Deposits         Drift Deposits (B3)         Algal Mat or Crust (	dicators: mum of one r A2) (B2)		<u>k all that apply)</u> Water-Stain <b>1, 2, 4A</b> , Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of	ed Leaves (B9) <b>(e</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) iizospheres along Reduced Iron (C4	e; vf = very fine; + xcept MLRA Living Roots (C3)	Secondary Ir <u>Secondary Ir</u> Water-St <b>4A, ar</b> Drainage Dry-Seas Saturatic Geomorp Shallow	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3)	equired) //LRA 1, 2,
Sparsely Vegetated Concave Surface (B8)         eld Observations:         urface Water Present?       Yes         /ater Table Present?       Yes         No       X       Depth (inches):         /ater Table Present?       Yes         No       X       Depth (inches):         aturation Present?       Yes       No         No       X       Depth (inches):       >20         Yes       No       X       Depth (inches):       >20         Yes       No       X       Depth (inches):       >20	Depth (inches):         emarks:       S = sar         YDROLOGY         etland Hydrology Indicators (mini         imary Indicators (mini         Surface Water (A1)         High Water Table (A)         Water Marks (B1)         Sediment Deposits (B3)         Algal Mat or Crust (Iron Deposits (B5)	dicators: mum of one r A2) (B2) (B4)		k all that apply) Water-Stain <b>1, 2, 4A</b> , Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	ed Leaves (B9) <b>(e</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilled	e; vf = very fine; + xcept MLRA	Secondary Ir <u>Secondary Ir</u> Water-St <b>4A, ar</b> Dry-Seas Saturatic Geomorp Shallow FAC-Net	e clay); - = light (less adicators (2 or more r tained Leaves (B9) ( <b>N</b> ad <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5)	equired) //LRA 1, 2, //agery (C9)
eld Observations:         urface Water Present?       Yes       No       X       Depth (inches):	Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks	dicators: mum of one r A2) (B2) (B4) s (B6)	equired; chec 	k all that apply) Water-Stain <b>1, 2, 4A</b> , Salt Crust (f Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves (B9) <b>(e</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilleo Stressed Plants (D	e; vf = very fine; + xcept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Seas Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> ad <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //agery (C9)
urface Water Present?       Yes       No       X       Depth (inches):          /ater Table Present?       Yes       No       X       Depth (inches):       >20       Wetland Hydrology Present?         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       Yes       No       X         includes capillary fringe)       Ves       No       X       X       X       Yes	Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks Inundation Visible of	dicators: mum of one r A2) (B2) (B4) s (B6) on Aerial Imag	equired; chec 	k all that apply) Water-Stain <b>1, 2, 4A</b> , Salt Crust (f Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves (B9) <b>(e</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilleo Stressed Plants (D	e; vf = very fine; + xcept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Seas Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> ad <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //agery (C9)
Vater Table Present?       Yes       No       X       Depth (inches):       >20       Wetland Hydrology Present?         aturation Present?       Yes       No       X       Depth (inches):       >20       Yes       No       X         ncludes capillary fringe)       Ves       Ves       Ves       No       X	Depth (inches):         emarks:       S = sar         YDROLOGY         etland Hydrology Indicators (mini         Surface Water (A1)         High Water Table (A         Saturation (A3)         Water Marks (B1)         Sediment Deposits         Drift Deposits (B3)         Algal Mat or Crust (         Iron Deposits (B5)         Surface Soil Cracks         Inundation Visible c         Sparsely Vegetated	dicators: mum of one r A2) (B2) (B4) s (B6) on Aerial Imag	equired; chec 	k all that apply) Water-Stain <b>1, 2, 4A</b> , Salt Crust (f Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves (B9) <b>(e</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilleo Stressed Plants (D	e; vf = very fine; + xcept MLRA	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Seas Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> ad <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //agery (C9)
aturation Present? Yes No X Depth (inches): >20 Yes No X ncludes capillary fringe)	Depth (inches):         emarks:       S = sar         YDROLOGY         etland Hydrology Indicators (mini	dicators: mum of one r A2) (B2) (B4) s (B6) on Aerial Imag d Concave Su	equired; chec - - - - - - - - - - - - - - - - - - -	k all that apply) Water-Stain <b>1, 2, 4A</b> , Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rr Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(e</b> : <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilleo Stressed Plants (D ain in Remarks)	e; vf = very fine; + xcept MLRA Living Roots (C3) ) d Soils (C6) 1) (LRR A)	Secondary Ir Secondary Ir Water-Si 4A, ar Drainage Dry-Seas Saturatic Geomory Shallow FAC-Net Raised A	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> ad <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) ant Mounds (D6) ( <b>LRI</b>	equired) //LRA 1, 2, //nagery (C9)
ncludes capillary fringe)	Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks Inundation Visible of Sparsely Vegetated eld Observations: urface Water Present	dicators: mum of one r A2) (B2) (B4) s (B6) on Aerial Imag d Concave Su ? Yes	required; chec 	k all that apply) Water-Stain <b>1, 2, 4A</b> , Salt Crust (F Aquatic Inve Hydrogen S Oxidized Rr Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(e:</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) iizospheres along Reduced Iron (C4 Reduction in Tilleo Stressed Plants (D ain in Remarks) Depth (inches)	e; vf = very fine; + xcept MLRA Living Roots (C3) d Soils (C6) 1) (LRR A)	Secondary Ir Water-Si 4A, ar Drainage Dry-Seas Saturatic Geomorp Shallow FAC-Net Raised A Frost-He	a clay); - = light (less of adicators (2 or more r tained Leaves (B9) ( <b>N</b> ad <b>4B</b> ) a Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) unt Mounds (D6) ( <b>LRI</b> ave Hummocks (D7)	equired) //LRA 1, 2, // nagery (C9)
	Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B3) Surface Soil Cracks Inundation Visible of Sparsely Vegetated eld Observations: urface Water Present?	dicators: <u>mum of one r</u> A2) (B2) (B4) s (B6) on Aerial Imag d Concave Su ? Yes Yes	required; chec 	k all that apply) Water-Stain 1, 2, 4A, Salt Crust (F Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(e:</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilled Stressed Plants (D ain in Remarks) Depth (inches) Depth (inches)	e; vf = very fine; + xcept MLRA Living Roots (C3) ) d Soils (C6) 1) (LRR A) : :	Secondary Ir Water-Si 4A, ar Drainage Dry-Seas Saturatic Geomorp Shallow FAC-Net Raised A Frost-He	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> and <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) ont Mounds (D6) (LRI ave Hummocks (D7)	clay) equired) //LRA 1, 2, / hagery (C9) R A)
	Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust ( Iron Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks Inundation Visible of Sparsely Vegetated eld Observations: urface Water Present? aturation Present?	dicators: <u>mum of one r</u> A2) (B2) (B4) s (B6) on Aerial Imag d Concave Su ? Yes Yes Yes	required; chec 	k all that apply) Water-Stain 1, 2, 4A, Salt Crust (F Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(e:</b> <b>and 4B)</b> 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilled Stressed Plants (D ain in Remarks) Depth (inches) Depth (inches)	e; vf = very fine; + xcept MLRA Living Roots (C3) ) d Soils (C6) 1) (LRR A) : :	Secondary Ir Water-Si 4A, ar Drainage Dry-Seas Saturatic Geomorp Shallow FAC-Net Raised A Frost-He	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> and <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) ont Mounds (D6) (LRI ave Hummocks (D7)	clay) equired) //LRA 1, 2, / hagery (C9) R A)
	Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Ind imary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B1) Surface Soil Cracks Inon Deposits (B5) Surface Soil Cracks Inundation Visible of Sparsely Vegetated eld Observations: urface Water Present? aturation Present? aturation Present? aturation Present?	dicators: mum of one r A2) (B2) (B4) s (B6) on Aerial Image d Concave Su d Concave Su Yes Yes Yes Yes Yes	required; chec 	k all that apply) Water-Stain 1, 2, 4A, Salt Crust (t Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves (B9) <b>(e</b> and 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C4 Reduction in Tilleo Stressed Plants (D ain in Remarks) Depth (inches) Depth (inches)	e; vf = very fine; + xcept MLRA Living Roots (C3) ) d Soils (C6) 1) (LRR A) : : : >20 : >20	Secondary Ir Secondary Ir Water-St 4A, ar Drainage Dry-Seas Saturatic Geomorp Shallow FAC-Neu Raised A Frost-He Wetland	e clay); - = light (less of ndicators (2 or more r tained Leaves (B9) ( <b>N</b> and <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In ohic Position (D2) Aquitard (D3) utral Test (D5) ont Mounds (D6) (LRI ave Hummocks (D7)	clay) equired) //LRA 1, 2, // hagery (C9) R A)

Investigator(s):         C. Moller         Section, Township, Range: Sec. 20, T. 2N, R. TW           LandTorm (initiatiops terrace, etc.):         Hillstope         Local relife (cencave, conver, notic):         Concave         Slope (%):         15           Solidhap Unit Name:         17E: Gobie alit Loan; 30 to 60 percent slopes         NWI classification:         NW classification:	Project/Site: Burlington	Creek Forest OHW Del	lineation		City/County:	Portland / Mu	ltnomah	Sampling Dat	e: 8/29/2021	
Landtorm (IRR): A_Northwest Foreis and Coast Lat: 45.643012 Long: -122.043471 Data::: WOS 1084 Subregion (LRR): A_Northwest Foreis and Coast Lat: 45.643012 Long: -122.043471 Long: -122.043471 Ves	Applicant/Owner: Metro						State: OR	Samplinç	g Point:	SP5
Subregion (LRR): A_Northwest Forests and Coast       Lat: 45.643612       Long: -122.843471       Datum: WGS 1984         Soli Map Unit Name:       TTE: Golde sili coum: 30 to 60 percent slopes       MVI classificator:       MVI classificator:         Soli Map Unit Name:       TTE: Golde sili coum: 30 to 60 percent slopes       MVI classificator:       MVI classificator:         Are Vagetation	Investigator(s): C. Molle	er			Section,	Township, Rang	e: Sec. 20, T. 2N, R. 1V	V		
Soli Map Unit Name:       17E: Goble sill loam, 30 to 60 percent skpes       NV       NV       If no. explaint in Remarks)         Are Vagetation       .Sol         No       Yes       X       No       Mo       Mo <td>Landform (hillslope, terrace, e</td> <td>tc.): Hillslope</td> <td></td> <td></td> <td></td> <td>Local relief</td> <td>(concave, convex, none):</td> <td>Concave</td> <td>Slope (%):</td> <td>15</td>	Landform (hillslope, terrace, e	tc.): Hillslope				Local relief	(concave, convex, none):	Concave	Slope (%):	15
Are climate / hydrologic conditions on the site typical for this time of year? YesNoAre 'Normal Circumstances' present? YesNo Are VegetationSoilor Hydrologynaturally problemula? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophic Vegetation Present? YesNoX is the sampled Area within a Welland? YesNoX Welland Hydrology Present? YesNoX Mumber of Dominant Species 1. Truly pricataO0% Yes _ FAC 2. Anno nubre of Dominant Species 1. Truly spricataO0% Yes _ FAC 3	Subregion (LRR): A, North	west Forests and Coas	st	Lat: 4	45.643612	Lon	g: -122.843471	Datur	n: WGS 198	4
Acv Vegetation      Soil      or Hydrology      isginificantly disturbed?       Are Normal Concentrations?       The Normal Concentrations?	Soil Map Unit Name:	17E: Goble silt loam	, 30 to 60 perce	ent slop	es		NWI	lassification:		
Are Vegenation      Soil	Are climatic / hydrologic cor	nditions on the site typic	al for this time	of year?	?	Ye	es X No	(If no, ex	plain in Rema	arks)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrophylic Vegetation Present?       Yes       No       X       Is the Sampled Area within a Wetland?       Yes       No       X         Wetland Hydrology Present?       Yes       No       X       Is the Sampled Area within a Wetland?       Yes       No       X         Precipitation prior to fieldwork:       None       None       X       Is the Sampled Area within a Wetland?       Yes       No       X         VEGETATION       Absolute       Dominant       Indicator       Dominance Test worksheet:       Number of Dominant Species         1.       Thai and picata       60%       Yes       FAC       That Are OBL; FACW, or FAC:       5       (b)         2.       Absolute       20%       Yes       FAC       That Are OBL; FACW, or FAC:       100%       (AB)         2.       Absolute       20%       Yes       FAC       That Are OBL; FACW, or FAC:       100%       (AB)         2.       Babilita/Shrub Statum       (Plot size:_10'r.)       30%       Yes       FAC       That Are OBL; FACW, or FAC:       100%       (AB)         2.       Sepcies       O       X =       0       End and Scener of Multiply bry<	Are Vegetation	,Soil,	or Hydrology		significantly	disturbed? A	Are "Normal Circumstand	es" present?	Yes X	No
Hydrophytic Vegetation Present?       Yes       X       No       X       Is the Sampled Area         Hydric Soil Present?       Yes       No       X       within a Wetland Hydrocky Present?       No       X         Precipitation prior to fieldwork:       None       No       X       within a Wetland?       Yes       No       X         Precipitation prior to fieldwork:       None       Absolute       Dominant       Status       Number of Dominant Species         1. <i>Truly plicata</i> 60%       Yes       FAC       Total Number of Dominant Species         2. <i>Anus rubra</i> 60%       Yes       FAC       Total Number of Dominant Species         4.	Are Vegetation								,	
Hydric Soil Present?       Yes       No       X       Is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Precipitation prior to fieldwork:       None       None       X       Wetland?       Yes       No       X         VEGETATION       Absolute       Dominant       Indicator       Number of Dominant Species       T         1       Truja plicata       60%       Yes       FAC       Number of Dominant Species       T         2.       Anus rubra       20%       Yes       FAC       Total Number of Dominant Species       5       (A)         3.       20%       Yes       FAC       Total Number of Dominant Species       5       (B)         2.       Anus rubra       20%       Yes       FAC       Total Number of Dominant Species       5       (B)         3.       20%       Yes       FAC       That Are OBL, FACW, or FAC:       100% (AB)       (B)         2.       2.       2.00%       Yes       FAC       That Are OBL, FACW, or FAC:       100% (A)         3.       2.00%       Yes       FAC       Prevalence Index worksheet:       100% (A)       100% (A)					sampling	point locati	ons, transects, im	portant fea	itures, etc	).
Wetland Hydrology Present?         Yes         No         X         within a Wetland?         Yes         No         X           Precipitation prior to fieldwork:         None         None         No         X         Indicator           Trace Stratum         (Plot size: 30' r.)         Absolute         Dominant         Indicator         Number of Dominant Species           1.         Traje priceta         60%         Yes         FAC         Total Number of Dominant Species           2.         Atras rubra         20%         Yes         FAC         Total Number of Dominant Species           3.         20%         Yes         FAC         Total Number of Dominant Species         6(B)           2.         Atras rubra         20%         Yes         FAC         Total Number of Dominant Species           1.         Babing/Shrub Stratum         (Plot size: 10' r.)         B0%         = Total Cover         FAC         Total Xe OBL Species         0         X 2 = 0         FAC         Total Xe OBL Species         0         X 2 = 0         FAC         FAC         OBL species         0         X 2 = 0         FAC         FAC         FAC         OBL species         0         X 2 = 0         FAC         FAC         FAC         OBL species						le the Course				
Nome       Nome         Recarats:       None         VEGETATION       Absolute       Dominant         Tree Stratum       (Plot size: _30' r)       Absolute       Status         1       True Stratum       (Plot size: _30' r)       Absolute       Status         2       Anus robra       20%       Yes       FAC         3.       80%       = Total Cover       Percent of Dominant Species         4.	-		es	No						
Remarks:         VEGETATION           Tries Stratum         (Plot size:30' r)         Absolute         Dominant         Indicator           1         Truja plicata         60%         Yes         FAC           2         Alus rubra         20%         Yes         FAC           3.			es	No	<u>X</u>	within a wei	liand? Yes	No	<u> </u>	
Image: Stratum         (Plot size:30' r)         Absolute % Cover         Dominant         Indicator         Dominante Species           1         Thuja plicata         60%         Yes         FAC           Amus rubra         20%         Yes         FAC           3.         20%         Yes         FAC           3.         20%         Yes         FAC           80%         Yes         FAC           3.         80%         = Total Cover           80%         Yes         FAC           80%         Yes         FAC           80%         FAC         That Are OBL, FACW, or FAC:         100%           80%         Yes         FAC         Percent of Dominant Species           1         Rubus spectabilis         20%         Yes         FAC           2         Euonymus occidentatis         5%         Yes         FAC           3.         20%         Yes         FAC         Total % Cover of.           4.         20%         Yes         FAC         Status           5.         20%         Yes         FAC         Status           6.         3.0         Yes         FAC         Statas         3	Remarks:	rk: None								
Tree Stratum       (Plot size: _30 r.)       % Cover       Species?       Status       Number of Dominant Species         1.       Thuig plicata       60%       Yes       FAC       That Are OBL, FACW, or FAC: _5 (A)         2.       Alus rubre       20%       Yes       FAC       Total Number of Dominant         3.	VEGETATION									
1.       Thuja plicata       60%       Yes       FAC         2.       Ainus rubra       20%       Yes       FAC         3.	Tree Stratum (Dist si-	γ⊖: 30'r \								
2. <u>Alrus rubra</u> 00%       Tes       TAC       Initial Net Obc, FACH, of FAC.       0         3.       20%       Yes       FAC       Total Number of Dominant         4.		.e. <u>301</u> )								
3.       20%       1es       1/2         4.	Thuja plicala			· -	Yes		That Are OBL, FACW	/, or FAC:	5	(A)
4.	Allius Tubia		20%	· -	Yes	FAC				
B0%         = Total Cover         Percent of Dominant Species           1.         Rubus spectabilis         20%         Yes         FAC           2.         Euonymus occidentalis         5%         Yes         FAC           3.				· -						
Sapling/Shrub Stratum       (Plot size: 10' r.)       Percent of Dominant Species         1.       Rubus spectabilis       20%       Yes       FAC       That Are OBL, FACW, or FAC: 100% (A/B)         2.       Euonymus accidentalis       5%       Yes       FAC       Total % Cover of: Multiply by:         4.	+. 			· -			Species Across All S	rata:	5	(B)
1.       Rubus spectabilis       20%       Yes       FAC       That Are OBL, FACW, or FAC:       100%       (AB)         2.       Euonymus occidentalis       5%       Yes       FAC       Prevalence Index worksheet:       Total % Cover of:       Multiply by:         4.	Sanling/Shrub Stratum	(Diotaizo: 10'r )	80%	= Total	Cover			<b>.</b> .		
2. $20\%$ Tes       TAC       Thick of OLL, TROW, OT R.C. $2LL^{2}$ (VD)         3.       5%       Yes       FAC       Prevalence Index worksheet:         Total % Cover of:       Multiply by:       0       0       x 2 =       0         4.       25%       = Total Cover       FAC species       0       x 2 =       0         FAC species       0       x 2 =       0       x 4 =       0         1.       Urtica dioica       30%       Yes       FAC       Prevalence Index worksheet:         1.       Urtica dioica       30%       Yes       FAC       UPL species       0       x 4 =       0         2.       30%       Yes       FAC       UPL species       0       x 5 =       0       (R)         3.       30%       Yes       FAC       UPL species       0       x 5 =       0       (R)         4.       1       135       (A)       405       (B)       Prevalence Index is \$3.0^1       (B)       (C)		(Plot size: <u>101</u> )					Percent of Dominant	Species	1000/	
3.       1/3       1/			20%	· -	Yes	FAC	That Are OBL, FACW	I, or FAC:	<u>100%</u>	(A/B)
4.	Euonymus occidentalis		5%	· -	Yes	FAC				
5. $25\%$ = Total Cover       FACW species $0 \times 2 =$ $0$ Herb Stratum       (Plot size: $5'r$ ) $30\%$ Yes       FAC $135 \times 3 =$ $405$ 1.       Urtica dioica $30\%$ Yes       FAC $0 \times 5 =$ $0$ 2. $30\%$ Yes       FAC $0 \times 5 =$ $0$ $x = 0$ 3. $30\%$ Yes       FAC $0 \times 5 =$ $0$ $x = 0$ 4. $30\%$ Yes       FAC $135 \times 3 =$ $405$ $0 \times 5 =$ $0$ 5. $-100$ $135 \times 3 =$ $300$ Hydrophytic Vegetation Indicators: $1 - Rapid Test for Hydrophytic Vegetation         6.       -100 \times 100 \times 10$				· -					<u>y:</u>	_
Herb Stratum(Plot size: $5'r$ ) $25\%$ = Total CoverFAC species $135$ x 3 = $405$ 1.Urtica dioica $30\%$ YesFACUPL species $0$ x 4 = $0$ 2UPL species $0$ x 5 = $0$ Column Totals: $135$ (A) $405$ (B)3Hydrophytic Vegetation Indicators:51 - Rapid Test for Hydrophytic Vegetation67891011212456781011230%= Total CoverHydrophyticWoody Vine Stratum12 <t< td=""><td></td><td></td><td></td><td>· -</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				· -						
Herb Stratum       (Plot size: _5' r_ )         1.       Urtica dioica       30%       Yes       FAC         2.	5.			· -						
1.       Urlica dioica       30%       Yes       FAC       UPL species       0       x 5 =       0         2.			25%	= Total	Cover					
2.       Column Totals: 135 (A) 405 (B)         3.       Prevalence Index = B/A = 3.00         4.       Hydrophytic Vegetation Indicators:         5.       1 - Rapid Test for Hydrophytic Vegetation         6.       X 2 - Dominance Test is >50%         7.       3 - Prevalence Index is ≤3.0 <sup>1</sup> 8.	<u> </u>	e: <u>5r</u> )					· ·			
3.       Prevalence Index = B/A = 3.00         4.       Hydrophytic Vegetation Indicators:         5.       1 - Rapid Test for Hydrophytic Vegetation         6.       X 2 - Dominance Test is >50%         7.       3 - Prevalence Index is ≤3.01         8.			30%	· -	Yes	FAC		<u> </u>	0	
4.				· -				. ,		(B)
5.				· -						
6.       X 2 - Dominance Test is >50%         7.       3 - Prevalence Index is ≤3.0 <sup>1</sup> 8.       4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         9.       data in Remarks or on a separate sheet)         10.       5 - Wetland Non-Vascular Plants <sup>1</sup> 11.       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         11.       30%         2.       0%         8.       0%         9.       11         12.       0%         9.       11         12.       0%         9.       10.         12.       0%         9.       11         12.       0%         9.       11         13.       0%         9.       1         14.       10.         15.       Wetland hydrology must be present.         16.       1         17.       0%         9.       1         10.       1         11.       1         12.       0%         9.       1         10.       1         10.       1         10. <td></td>										
7.	5.			. <u>-</u>					/egetation	
8.       4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         9.       5 - Wetland Non-Vascular Plants <sup>1</sup> 10.       5 - Wetland Non-Vascular Plants <sup>1</sup> 11.       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         11.       30%         Woody Vine Stratum       30%         1.       0%         2.       0%         % Bare Ground in Herb Stratum       70%				· -						
9.				· -						
10.	8.			· -				-		porting
11.	9.									
Woody Vine Stratum       (Plot size: 10' r )         1.       -         2.       -         0%       = Total Cover         With the present.       -         Hydrophytic       -         Vegetation       Yes         X       No         % Bare Ground in Herb Stratum       70%	10.									
Woody Vine Stratum         (Plot size: 10' r )         be present.           1.	11.									
2.         Hydrophytic           0%         = Total Cover         Vegetation         Yes         X         No           % Bare Ground in Herb Stratum         70%         Present?         Present?		(Plot size: <u>10' r</u> )	30%	= Total	Cover		-	oil and wetland	d hydrology n	nust
0%     = Total Cover     Vegetation     Yes     X     No       % Bare Ground in Herb Stratum     70%     Present?							Hydrophytic			
% Bare Ground in Herb Stratum 70% Present?			0%	= Total	Cover			Yes X P	٩o	
	% Bare Ground in Herb Stra	atum 70%					-	<u> </u>		
								d hv: clm	OC by: cmw	

	Matrix			R	edox Fea	atures		_	
(inches) Colo	or (moist)	%	Color (mois	t) %		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark
0-6 10	)YR 3/3	100						SiL	dry
6-13 10	)YR 3/4	100						SiL	dry
13-20+ 10	)YR 3/3	98	10YR 4/6	6 2		С	М	SiL	dry
									_
									_
									_
pe: C=Concentratior	n, D=Depletio	n, RM=Redu	ced Matrix CS=0	Covered or Co	pated Sa	nd Grains.	<sup>2</sup> Location: PL:	=Pore Lining, M=Matr	ix.
dric Soil Indicators:	(Applicable	to all LRRs,	unless otherw	ise noted.)			Indicators f	or Problematic Hydr	ric Soils <sup>3</sup> :
Histosol (A1)			Sandy Red	ox (S5)			2 cm Mu	ıck (A10)	
Histic Epipedon (A2	2)	-	 Stripped Ma	. ,				ent Material (TF2)	
Black Histic (A3)	,	-		ky Mineral (F	1) <b>(exce</b> j	pt MLRA 1)		allow Dark Surface (T	F12)
Hydrogen Sulfide (A	44)	•	Loamy Gle	/ed Matrix (F2	!)		Other (E	Explain in Remarks)	
Depleted Below Da	,		Depleted M		,			,	
<ul> <li>Thick Dark Surface</li> </ul>	,	,		Surface (F6)			<sup>3</sup> Indicators o	f hydrophytic vegetati	ion and
<ul> <li>Sandy Mucky Miner</li> </ul>		-		ark Surface (F			wetland hy	drology must be pres	sent.
 Sandy Gleyed Matri	. ,	-		ressions (F8)	,			turbed or problematic	
Type: Depth (inches): emarks: S = sar		= clay; L = l	oam or loamy; c	o = coarse; f =	= fine; vf		<b>ydric Soil Pre</b> = heavy (more	sent? Yes clay); - = light (less cl	No X
Type: Depth (inches): emarks: S = sar YDROLOGY	nd; Si = silt; C	= clay; L = l	oam or loamy; c	o = coarse; f =	= fine; vf		-		
Type: Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Inc	nd; Si = silt; C				= fine; vf		= heavy (more		lay)
Type: Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Inc	nd; Si = silt; C dicators: mum of one r		ck all that apply)			= very fine; + :	= heavy (more <u>Secondary l</u>	clay); - = light (less cl	lay) required)
Type: Depth (inches): marks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (mini	nd; Si = silt; C dicators: mum of one r		ck all that apply)	ned Leaves (B		= very fine; + :	= heavy (more <u>Secondary la</u> Water-S	clay); - = light (less cl	lay) required)
Type: Depth (inches): marks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (minii Surface Water (A1) High Water Table (/ Saturation (A3)	nd; Si = silt; C dicators: mum of one r		ck all that apply) Water-Stair	ned Leaves (B and 4B)		= very fine; + :	= heavy (more <u>Secondary li</u> Water-S 4A, ai	clay); - = light (less cl ndicators (2 or more r stained Leaves (B9) <b>(f</b>	lay) required)
Type: Depth (inches): Emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (mini Surface Water (A1) High Water Table (/	nd; Si = silt; C dicators: mum of one r		<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust (	ned Leaves (B and 4B)	9) <b>(exce</b>	= very fine; + :	= heavy (more <u>Secondary I</u> Water-S Drainag	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>I</b> nd <b>4B)</b>	lay) required) MLRA 1, 2,
Type: Depth (inches): marks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (minii Surface Water (A1) High Water Table (/ Saturation (A3)	hd; Si = silt; C dicators: mum of one n		<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inve	ned Leaves (B <b>and 4B)</b> B11)	99) <b>(exce</b> 33)	= very fine; + :	= heavy (more Secondary li Water-S 4A, ai Drainagi Dry-Sea	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>I</b> nd <b>4B)</b> e Patterns (B10)	nequired) MLRA 1, 2,
Type: Depth (inches): marks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (mini- Surface Water (A1) High Water Table ( <i>i</i> Saturation (A3) Water Marks (B1)	hd; Si = silt; C dicators: mum of one n		<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Invo Hydrogen S	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Gulfide Odor (C	19) <b>(exce</b> 13) C1)	= very fine; + :	= heavy (more <u>Secondary In</u> Water-S <b>4A, an</b> Drainago Dry-Sea Saturatio	clay); - = light (less cl ndicators (2 or more r stained Leaves (B9) ( <b>f</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2	nequired) MLRA 1, 2,
Type: Depth (inches): Emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (mini Surface Water (A1) High Water Table (/ Saturation (A3) Water Marks (B1) Sediment Deposits	hd; Si = silt; C dicators: mum of one r A2) (B2)		<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Invo Hydrogen S Oxidized Rł	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Gulfide Odor (C	19) <b>(exce</b> 13) C1) Iong Livi	= very fine; + :	= heavy (more <u>Secondary II</u> Water-S 4A, ar Drainage Dry-Sea Saturatio Geomor	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>I</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In	nequired) MLRA 1, 2,
Type: Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (minin Surface Water (A1) High Water Table ( <i>i</i> Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	hd; Si = silt; C dicators: mum of one r A2) (B2)		<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inve Hydrogen S Oxidized Rh Presence o	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Bulfide Odor (C nizospheres a	99) <b>(exce</b> 13) C1) Iong Livil n (C4)	= very fine; + =	= heavy (more <u>Secondary II</u> Water-S <b>4A, a</b> Drainagu Dry-Sea Saturatio Geomor Shallow	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>f</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2)	nequired) MLRA 1, 2,
Type: Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (mini- Surface Water (A1) High Water Table (/ Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (	hd; Si = silt; C dicators: mum of one r A2) (B2) B4)		ck all that apply) Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Invo Hydrogen S Oxidized Rł Presence o Recent Iron	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Sulfide Odor (C nizospheres al f Reduced Iro	19) <b>(exce</b> 13) C1) Iong Livi n (C4) Tilled So	ept MLRA	= heavy (more <u>Secondary I</u> Water-S <b>4A</b> , a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Ne	clay); - = light (less cl ndicators (2 or more r stained Leaves (B9) ( <b>f</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3)	lay) required) MLRA 1, 2, ) nagery (C9)
Type: Depth (inches): Emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (minin Surface Water (A1) High Water Table (/ Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5)	A2) (B2) (B6)	equired; che	<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inve Hydrogen S Oxidized Rh Presence o Recent Iron Stunted or S	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Gulfide Odor (C nizospheres al f Reduced Iro Reduction in	13) (exce 13) C1) long Livi n (C4) Tilled So ts (D1) (	ept MLRA	= heavy (more <u>Secondary II</u> Water-S <b>4A</b> , ar Drainagu Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised /	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>1</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2 on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5)	lay) required) MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): Emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (minin Surface Water (A1) High Water Table (/ Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks	dicators: mum of one r A2) (B2) B4) s (B6) on Aerial Imag	equired; che	<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inve Hydrogen S Oxidized Rh Presence o Recent Iron Stunted or S	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Sulfide Odor (C hizospheres al f Reduced Iro Reduction in Stressed Plan	13) (exce 13) C1) long Livi n (C4) Tilled So ts (D1) (	ept MLRA	= heavy (more <u>Secondary II</u> Water-S <b>4A</b> , ar Drainagu Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised /	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>f</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b> )	lay) required) MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (mini Surface Water (A1) High Water Table (/ Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks Inundation Visible o Sparsely Vegetated	dicators: mum of one r A2) (B2) B4) s (B6) on Aerial Imag	equired; che	<u>ck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inve Hydrogen S Oxidized Rh Presence o Recent Iron Stunted or S	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Sulfide Odor (C hizospheres al f Reduced Iro Reduction in Stressed Plan	13) (exce 13) C1) long Livi n (C4) Tilled So ts (D1) (	ept MLRA	= heavy (more <u>Secondary II</u> Water-S <b>4A</b> , ar Drainagu Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised /	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>f</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b> )	lay) required) MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): emarks: S = sar YDROLOGY etland Hydrology Inc imary Indicators (minin Surface Water (A1) High Water Table (/ Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks Inundation Visible of Sparsely Vegetated eld Observations:	hd; Si = silt; C dicators: mum of one r A2) (B2) B4) s (B6) on Aerial Imag I Concave Su	equired; che - - - - - - - - - - - - - - - - - - -	ck all that apply) Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inve Hydrogen S Oxidized Rł Presence o Recent Iron Stunted or S Other (Expl	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 Sulfide Odor (C hizospheres al f Reduced Iro Reduction in Stressed Plan	19) <b>(exce</b> 13) 10ng Livii n (C4) Tilled So ts (D1) ( (s)	ept MLRA	= heavy (more <u>Secondary II</u> Water-S <b>4A</b> , ar Drainagu Dry-Sea Saturatio Geomor Shallow FAC-Ne Raised /	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>f</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b> )	lay) required) MLRA 1, 2, ) nagery (C9) R A)
Depth (inches): emarks: S = sar YDROLOGY Tetland Hydrology Inc rimary Indicators (mining Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks Inundation Visible o	hd; Si = silt; C dicators: mum of one r A2) (B2) B4) s (B6) on Aerial Imag I Concave Su	equired; che ery (B7) rface (B8)	ck all that apply) Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inve Hydrogen S Oxidized Rł Presence o Recent Iron Stunted or S Other (Expl	ned Leaves (B <b>and 4B)</b> B11) ertebrates (B1 sulfide Odor (C nizospheres al f Reduced Iro Reduction in Stressed Plan ain in Remark	(9) <b>(exce</b> (3) (21) (0ng Livi n (C4) Tilled So (ts (D1) ( (s) (ches):	ept MLRA	= heavy (more <u>Secondary In</u> Water-S <b>4A, an</b> Dry-Sea Dry-Sea Saturation Geomor Shallow FAC-Ne Raised J Frost-He	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>f</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LR</b> )	lay) <u>required)</u> MLRA 1, 2, ) nagery (C9) R A)
Type: Depth (inches): emarks: S = sar YDROLOGY retland Hydrology Inc rimary Indicators (minin Surface Water (A1) High Water Table (/ Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ( Iron Deposits (B5) Surface Soil Cracks Inundation Visible o Sparsely Vegetated eld Observations: Surface Water Present	hd; Si = silt; C dicators: mum of one r A2) (B2) B4) s (B6) on Aerial Imag I Concave Su ? Yes	equired; che ery (B7) rface (B8)	ck all that apply) Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Invo Hydrogen S Oxidized Rł Presence o Recent Iron Stunted or S Other (Expl	ned Leaves (B and 4B) B11) ertebrates (B1 bulfide Odor (C nizospheres al f Reduced Iro Reduction in Stressed Plan ain in Remark	(9) <b>(exce</b> (3) (13) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	= very fine; + =	= heavy (more <u>Secondary In</u> Water-S <b>4A, an</b> Dry-Sea Dry-Sea Saturation Geomor Shallow FAC-Ne Raised J Frost-He	clay); - = light (less cl ndicators (2 or more r itained Leaves (B9) ( <b>f</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (L <b>R</b> eave Hummocks (D7)	lay) <u>required)</u> MLRA 1, 2, ) nagery (C9) R A)

Project/Site: Burlington Creek Forest OF	W Delineation	City/County:	Portland / Mu	lltnomah	Sampling Date: 9/4	/2021
Applicant/Owner: Metro				State: OR	Sampling Point	:: SP6
Investigator(s): C. Moller		Section,	Township, Rang	ge: Sec. 20, T. 2N, R. 1	W	
Landform (hillslope, terrace, etc.): Hillslope	Э		Local relief	(concave, convex, none):	Concave Slope	e (%): 50
Subregion (LRR): A, Northwest Forests an	d Coast	Lat: 45.640166	 Lor	ng: -122.838842	Datum: WC	S 1984
Soil Map Unit Name: 17E: Goble si	It loam, 30 to 60 perce	ent slopes	_	NWI	classification:	
Are climatic / hydrologic conditions on the sit	e typical for this time	of year?	Ye	es X No	(If no, explain ir	ו Remarks)
Are Vegetation,Soil	, or Hydrology	significantly	disturbed?	Are "Normal Circumstan	ices" present? Yes	s <u>X</u> No
Are Vegetation,Soil	, or Hydrology			If needed, explain any a		
SUMMARY OF FINDINGS – Attac	ch site map show	<u> </u>	point locat	ions, transects, in	nportant feature	s, etc.
Hydrophytic Vegetation Present?	Yes	No <b>X</b>				
Hydric Soil Present?	Yes	No <b>X</b>	Is the Samp			
Wetland Hydrology Present?	Yes	No <b>X</b>	within a We	tland? Yes	<u>No X</u>	_
Precipitation prior to fieldwork: None Remarks:						
VEGETATION						
	Absolute	Dominant	Indicator	Dominance Test w		
Tree Stratum (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominan		
1. Acer macrophyllum	40%	Yes	FACU	That Are OBL, FAC	W, or FAC: 3	(A)
2. Alnus rubra	40%	Yes	FAC			
3.		·		Total Number of Dor	minant	
4.				Species Across All S	Strata: 6	(B)
	80%	= Total Cover				
Sapling/Shrub Stratum (Plot size: 1	<u>0' r</u> )			Percent of Dominant	t Species	
<sup>1.</sup> Rubus armeniacus	20%	Yes	FAC	That Are OBL, FAC	W, or FAC: <u>50</u>	<u>%</u> (A/B)
2				Prevalence Index w		
3		· · · · · · · · · · · · · · · · · · ·		Total % Cover	of: Multiply by:	
4		· · · · · · · · · · · · · · · · · · ·		OBL species	0 x 1 =	0
5		.		FACW species	0 x 2 =	0
	20%	= Total Cover		FAC species	65 x 3 =	195
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				FACU species	50 x 4 =	200
1. Polystichum munitum	5%	Yes	FACU	UPL species	0 x 5 =	0
2. Athyrium cyclosorum	5%	Yes	FAC	Column Totals: 1	115 (A)	395 (B)
3. <u>Tellima grandiflora</u>	5%	Yes	FACU	Prevalence Inde	ex = B/A =	3.43
4				Hydrophytic Vegeta	ation Indicators:	
5				1 - Rapid Test fo	or Hydrophytic Vegeta	tion
6.				2 - Dominance 1	Гest is >50%	
7.				3 - Prevalence I	ndex is ≤3.0 <sup>1</sup>	
8.				4 - Morphologica	al Adaptations <sup>1</sup> (Provid	de supporting
9.				data in Rema	arks or on a separate s	sheet)
10.				5 - Wetland Non	n-Vascular Plants <sup>1</sup>	
11.				Problematic Hyd	drophytic Vegetation <sup>1</sup> (	(Explain)
Woody Vine Stratum (Plot size:1	<u>15%</u>	= Total Cover		<sup>1</sup> Indicators of hydric be present.	soil and wetland hydro	ology must
1.						
2	0%	= Total Cover		Hydrophytic Vegetation	Yes No	х
% Bare Ground in Herb Stratum 8	5%			Present?	<u>no</u>	<u> </u>
	J /0					
Remarks:				Entere	ed by: <u>clm</u> QC by	r: cmw

	Mat				Redox Fe			•	
(inches)	Color (moist)	%	Color (moi	st)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark
0-6	10YR 3/3	50						SiL	dry
	10YR 4/8	50							
6-13	10YR 4/3	100						SiL	dry
13-20+	10YR 3/4	90	5YR 4/6	3	10			SiL	dry
								· · · · · · · · · · · · · · · · · · ·	
	ntration, D=Deplet	ion RM-Red	uced Matrix CS-		r Coated Sa	and Grains	<sup>2</sup> Location: PL -	Pore Lining, M=Matri	
	ators: (Applicabl							or Problematic Hydr	-
					.,			-	
_Histosol (A1)			Sandy Rec				2 cm Mu	. ,	
Histic Epiped	. ,		Stripped M	· · /				ent Material (TF2)	= ( = )
Black Histic (/	, , , , , , , , , , , , , , , , , , ,			•	. , .	pt MLRA 1)		allow Dark Surface (T	F12)
Hydrogen Sul	. ,			yed Matrix	(F2)		Other (E	xplain in Remarks)	
_ ·	ow Dark Surface (	A11)	Depleted N	/atrix (F3)			3		
Thick Dark Su	urface (A12)		Redox Dar	k Surface (	(F6)		Indicators o	f hydrophytic vegetati	on and
Sandy Mucky	/ Mineral (S1)		Depleted D	ark Surfac	e (F7):		wetland hy	drology must be pres	ent,
Sandy Gleyed	d Matrix (S4)		Redox Dep	oressions (F	F8)		unless dist	urbed or problematic.	
Type: Depth (inches): emarks: S	 S = sand; Si = silt;	- C = clay; L =	loam or loamy; o	<del>-</del> co = coarse	e; f = fine; vf		ydric Soil Pres = heavy (more	sent? Yes clay); - = light (less cla	No X
Type: Depth (inches): emarks: S YDROLOGY	S = sand; Si = silt;	_ C = clay; L =	loam or loamy; o	- co = coarse	e; f = fine; vf		-		
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo	S = sand; Si = silt;				e; f = fine; vf		= heavy (more		ay)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo	S = sand; Si = silt; f pgy Indicators: s (minimum of one		eck all that apply	·)	e; f = fine; vf s (B9) <b>(exc</b> a	f = very fine; +	= heavy (more	clay); - = light (less cl	ay)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators	S = sand; Si = silt; f pgy Indicators: s (minimum of one er (A1)		eck all that applyWater-Stai	·)		f = very fine; +	= heavy (more <u>Secondary Ir</u> Water-S	clay); - = light (less cla ndicators (2 or more re	ay)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate	S = sand; Si = silt; Pgy Indicators: s (minimum of one er (A1) Table (A2)		eck all that applyWater-Stai	ned Leaves and 4B)		f = very fine; +	= heavy (more Secondary Ir Water-S 4A, ar	clay); - = light (less cla ndicators (2 or more re tained Leaves (B9) <b>(N</b>	ay)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T	S = sand; Si = silt; f pgy Indicators: s (minimum of one er (A1) Table (A2) 3)		eck all that apply Water-Stai 1, 2, 4A, Salt Crust	ned Leaves and 4B)	s (B9) <b>(exce</b>	f = very fine; +	= heavy (more <u>Secondary Ir</u> Water-S Drainage	clay); - = light (less cla ndicators (2 or more re tained Leaves (B9) <b>(N</b> n <b>d 4B)</b>	ay) equired) ILRA 1, 2,
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A	S = sand; Si = silt; ygy Indicators: s (minimum of one er (A1) Table (A2) 3) (B1)		eck all that apply Water-Stai 1, 2, 4A, Salt Crust	r) ned Leaves <b>and 4B)</b> (B11)	s (B9) <b>(exce</b> (B13)	f = very fine; +	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea	clay); - = light (less clay) ndicators (2 or more re tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10)	ay) equired) ILRA 1, 2,
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A: Water Marks	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) able (A2) (3) (B1) posits (B2)		eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen	ned Leaves and 4B) (B11) vertebrates Sulfide Odd	s (B9) <b>(exco</b> (B13) or (C1)	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio	clay); - = light (less cla ndicators (2 or more re tained Leaves (B9) <b>(N</b> n <b>d 4B)</b> e Patterns (B10) son Water Table (C2)	ay) equired) ILRA 1, 2,
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Dep Drift Deposits	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) Table (A2) 3) (B1) posits (B2) s (B3)		eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R	ned Leaves and 4B) (B11) vertebrates Sulfide Odd	s (B9) <b>(exce</b> (B13) or (C1) es along Livi	f = very fine; +	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatic Geomor	clay); - = light (less clay); - = light (less clay) ndicators (2 or more re tained Leaves (B9) <b>(N</b> n <b>d 4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2)	ay) equired) ILRA 1, 2,
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C	S = sand; Si = silt; yogy Indicators: s (minimum of one er (A1) Table (A2) 3) (B1) posits (B2) s (B3) Crust (B4)		eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o	r) ned Leaves <b>and 4B)</b> (B11) vertebrates Sulfide Odo hizosphere of Reduced	s (B9) <b>(exce</b> (B13) or (C1) es along Livi I Iron (C4)	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomor Shallow	clay); - = light (less clay); - = light (less clay) ndicators (2 or more re tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3)	ay) equired) ILRA 1, 2,
Type: Depth (inches): emarks: S YDROLOGY retland Hydrolo rimary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4) s (B5)		eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iro	ned Leaves and 4B) (B11) vertebrates Sulfide Odc hizosphere of Reduced n Reductior	s (B9) <b>(exce</b> (B13) or (C1) es along Livi I Iron (C4) n in Tilled S	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Dry-Sea Dry-Sea Saturatio Geomor Shallow FAC-Ne	clay); - = light (less clay); - = light (less clay) ndicators (2 or more restained Leaves (B9) <b>(Nord 4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Imphic Position (D2) Aquitard (D3) utral Test (D5)	equired) //LRA 1, 2, //agery (C9)
Type: Depth (inches): emarks: S YDROLOGY /etland Hydrolo timary Indicators Surface Water High Water T Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or ( Iron Deposits Surface Soil (	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) Table (A2) 3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6)	e required; ch	eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or	r) ned Leaves <b>and 4B)</b> (B11) vertebrates Sulfide Odc hizosphere of Reduced n Reductior Stressed P	s (B9) <b>(exce</b> (B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1) (	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Ner Raised A	clay); - = light (less clay); - = light (less clay) ndicators (2 or more re tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRF</b>	ay) equired) //LRA 1, 2, hagery (C9)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	S = sand; Si = silt; ygy Indicators: s (minimum of one er (A1) Table (A2) (B1) (B1) (B1) (B1) (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Im-	e required; ch	eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or	ned Leaves and 4B) (B11) vertebrates Sulfide Odc hizosphere of Reduced n Reductior	s (B9) <b>(exce</b> (B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1) (	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Ner Raised A	clay); - = light (less clay); - = light (less clay) ndicators (2 or more restained Leaves (B9) <b>(Nord 4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Imphic Position (D2) Aquitard (D3) utral Test (D5)	ay) equired) //LRA 1, 2, hagery (C9)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or O Iron Deposits Surface Soil O Inundation Vis Sparsely Veg	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Im- getated Concave S	e required; ch	eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or	r) ned Leaves <b>and 4B)</b> (B11) vertebrates Sulfide Odc hizosphere of Reduced n Reductior Stressed P	s (B9) <b>(exce</b> (B13) or (C1) es along Liv I Iron (C4) n in Tilled S Plants (D1) (	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Ner Raised A	clay); - = light (less clay); - = light (less clay) ndicators (2 or more re tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRF</b>	ay) equired) //LRA 1, 2, hagery (C9)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Surface Water High Water T Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg eld Observation	S = sand; Si = silt; Pagy Indicators: s (minimum of one er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Im- getated Concave S ons:	e required; ch agery (B7) Surface (B8)	eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or Other (Exp	ned Leaves and 4B) (B11) vertebrates Sulfide Odc hizosphere of Reduced n Reductor Stressed P lain in Rem	s (B9) <b>(exce</b> (B13) or (C1) es along Live I Iron (C4) n in Tilled S Plants (D1) ( narks)	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Sea Saturatio Geomory Shallow FAC-Ner Raised A	clay); - = light (less clay); - = light (less clay) ndicators (2 or more re tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRF</b>	ay) equired) //LRA 1, 2, hagery (C9)
Type: Depth (inches): emarks: S YDROLOGY etland Hydrolo imary Indicators Gurface Water High Water T. Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg eld Observation	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) Table (A2) 3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Im- getated Concave S ins: resent? Yes	e required; ch agery (B7) Surface (B8)	eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iron Stunted or Other (Exp	ned Leaves and 4B) (B11) vertebrates Sulfide Odd hizosphere of Reduced n Reductior Stressed P Jain in Rem	s (B9) <b>(exce</b> (B13) or (C1) es along Livi I Iron (C4) n in Tilled S Plants (D1) ( narks)	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Dry-Sea Dry-Sea Saturatio Geomor Shallow FAC-Nel Raised A Frost-He	clay); - = light (less cla <u>indicators (2 or more re</u> tained Leaves (B9) <b>(N</b> <b>ind 4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRF</b> eave Hummocks (D7)	equired) //LRA 1, 2, //aagery (C9)
Type: Depth (inches): emarks: S YDROLOGY /etland Hydrolo imary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Dep Nater Marks Sediment Dep Nater Marks Sediment Dep Nater Marks Surface Soil (C Iron Deposits Surface Soil (C Inundation Vis Sparsely Veg eld Observation surface Water Privater Table Pres	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) Table (A2) 3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Im- getated Concave S isible on Aerial Im- isible on Aerial Im- Im- Im- Im- Im- Im- Im- Im-	agery (B7) Surface (B8)	eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or Other (Exp	r) ned Leaves <b>and 4B)</b> (B11) vertebrates Sulfide Odc hizosphere of Reduced n Reductior Stressed P lain in Rem Depth Depth	s (B9) <b>(exce</b> (B13) or (C1) es along Livi l Iron (C4) n in Tilled S Plants (D1) ( narks) (inches):	ept MLRA ing Roots (C3) oils (C6) (LRR A)	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Dry-Sea Dry-Sea Saturatio Geomor Shallow FAC-Nel Raised A Frost-He	clay); - = light (less cla ndicators (2 or more re- tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRF</b> eave Hummocks (D7) <b>I Hydrology Present</b>	ay) equired) //ILRA 1, 2, // hagery (C9) R A)
Depth (inches): emarks: S PDROLOGY retland Hydrolo rimary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	S = sand; Si = silt; pgy Indicators: s (minimum of one er (A1) Table (A2) 3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial Im- getated Concave S isible on Aerial Im- isible on Aerial Im- Im- Im- Im- Im- Im- Im- Im-	agery (B7) Surface (B8)	eck all that apply Water-Stai <b>1, 2, 4A</b> , Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or Other (Exp	r) ned Leaves <b>and 4B)</b> (B11) vertebrates Sulfide Odc hizosphere of Reduced n Reductior Stressed P lain in Rem Depth Depth	s (B9) <b>(exce</b> (B13) or (C1) es along Livi I Iron (C4) n in Tilled S Plants (D1) ( narks)	ept MLRA	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b> Dry-Sea Dry-Sea Saturatio Geomor Shallow FAC-Nel Raised A Frost-He	clay); - = light (less cla <u>indicators (2 or more re</u> tained Leaves (B9) <b>(N</b> <b>ind 4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRF</b> eave Hummocks (D7)	equired) //LRA 1, 2, //aagery (C9)

Project/Site: Burlington Creek Forest OH	N Delineation	City/County:	Portland / Mu	Iltnomah	Sampling Date: 9/4/2	2021
Applicant/Owner: Metro				State: OR	Sampling Point:	SP7
Investigator(s): C. Moller		Section,	Township, Rang	ge: Sec. 20, T. 2N, R. 1	W	
Landform (hillslope, terrace, etc.): Hillslope			Local relief	(concave, convex, none):	Concave Slope	(%): 50
Subregion (LRR): A, Northwest Forests and	Coast	Lat: 45.636136	Lor	ng: -122.840471	Datum: WGS	3 1984
Soil Map Unit Name: 17E: Goble silt	loam, 30 to 60 perce	ent slopes		NWI	classification:	
Are climatic / hydrologic conditions on the site	typical for this time	of year?	Ye	es X No	(If no, explain in	Remarks)
Are Vegetation,Soil	, or Hydrology	significantly	disturbed?	Are "Normal Circumstar	ices" present? Yes	X No
Are Vegetation,Soil	, or Hydrology	naturally pro		If needed, explain any a	,	
SUMMARY OF FINDINGS – Attac	h site map show		point locat	ions, transects, in	nportant features	, etc.
Hydrophytic Vegetation Present?	Yes	No <b>X</b>				
Hydric Soil Present?	Yes	No X	Is the Samp			
Wetland Hydrology Present?	Yes	No <b>X</b>	within a We	tland? Yes	<u>No X</u>	1
Precipitation prior to fieldwork: None Remarks:						
VEGETATION				1		
	Absolute	Dominant	Indicator	Dominance Test w		
<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominan	it Species	
1. Acer macrophyllum	70%	Yes	FACU	That Are OBL, FAC	W, or FAC: 2	(A)
<sup>2.</sup> Thuja plicata	5%	No	FAC			
3.				Total Number of Do	minant	
4				Species Across All S	Strata: 6	(B)
	75%	= Total Cover				
Sapling/Shrub Stratum (Plot size: 10	<u>''r</u> )			Percent of Dominan	t Species	
<sup>1.</sup> Rubus armeniacus	25%	Yes	FAC	That Are OBL, FAC	W, or FAC: <u>33%</u>	2 (A/B)
<sup>2.</sup> Rubus ursinus	25%	Yes	FACU	Prevalence Index v		
<sup>3.</sup> <u>Rubus spectabilis</u>	15%	Yes	FAC	Total % Cover	of: Multiply by:	
4.				OBL species	0 x 1 =	0
5				FACW species	0 x 2 =	0
	65%	= Total Cover		FAC species	50 x 3 =	150
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				FACU species	125 x 4 =	500
1. Polystichum munitum	15%	Yes	FACU	UPL species	0 x 5 =	0
2. <u>Tellima grandiflora</u>	10%	Yes	FACU	Column Totals:	175 (A)	650 (B)
3. <u>Cirsium arvense</u>	5%	No	FAC	Prevalence Inde	ex = B/A = <u>3.</u>	71
4. <u>Galium aparine</u>	5%	No	FACU	Hydrophytic Veget	ation Indicators:	
5				1 - Rapid Test fo	or Hydrophytic Vegetatio	on
6				2 - Dominance	Test is >50%	
7				3 - Prevalence I	ndex is ≤3.0 <sup>1</sup>	
8				4 - Morphologica	al Adaptations <sup>1</sup> (Provide	e supporting
9.				data in Rema	arks or on a separate sh	neet)
10				5 - Wetland Nor	n-Vascular Plants <sup>1</sup>	
11				Problematic Hyd	drophytic Vegetation <sup>1</sup> (E	xplain)
Woody Vine Stratum (Plot size: 10	<u>35%</u>	= Total Cover		<sup>1</sup> Indicators of hydric be present.	soil and wetland hydrol	ogy must
1.						
2	0%	= Total Cover		Hydrophytic Vegetation	Yes No 🕽	۱
% Bare Ground in Herb Stratum 65				Present?		<u> </u>
	/0					CD14
Remarks:				Entere	ed by: <u>clm</u> QC by:	GIIW

(:								
(inches)	Color (moist)	%	Color (moi	st) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark
0-14	10YR 3/4	100					SiL	dry
			_					
ne: C=Concer	ntration D=Deple	tion RM=Rec	uced Matrix CS=	Covered or Coated S	Sand Grains	<sup>2</sup> l ocation: PI =	Pore Lining, M=Matri	 ix
•	ators: (Applicat						or Problematic Hydr	-
							•	
Histosol (A1)			Sandy Rec			2 cm Muo	. ,	
Histic Epiped	. ,		Stripped M				ent Material (TF2)	
Black Histic (	· · ·			cky Mineral (F1) <b>(exc</b>	ept MLRA 1)		llow Dark Surface (T	F12)
Hydrogen Su	· · ·			eyed Matrix (F2)		Other (E)	plain in Remarks)	
	low Dark Surface	(A11)	Depleted N			31	h	
Thick Dark S			Redox Dar	k Surface (F6)		indicators of	hydrophytic vegetati	on and
_Sandy Mucky	y Mineral (S1)		Depleted D	Dark Surface (F7)		wetland hyd	lrology must be pres	ent,
Sandy Gleyed	d Matrix (S4)		Redox Dep	pressions (F8)		unless distu	urbed or problematic.	
ock refusal at 14	S = sand; Si = sill 4 inches.	; C = clay; L =	loam or loamy; d	_ co = coarse; f = fine; \		ydric Soil Pres = heavy (more c		ay)
Depth (inches): emarks: S ock refusal at 14	S = sand; Si = sill 4 inches.	; C = clay; L =	loam or loamy; d	– co = coarse; f = fine; \		-		
Depth (inches): emarks: Sock refusal at 14 YDROLOGY etland Hydrolo	S = sand; Si = sill 4 inches. Y					= heavy (more o		ay)
Depth (inches): marks: S ck refusal at 14 YDROLOGY atland Hydrolo mary Indicators	S = sand; Si = sill 4 inches. Y ogy Indicators: s (minimum of or		eck all that apply		vf = very fine; + =	= heavy (more o <u>Secondary In</u>	clay); - = light (less cl	ay)
Depth (inches): marks: S ck refusal at 14 YDROLOGY etland Hydrolo	S = sand; Si = sill 4 inches. Y ogy Indicators: s (minimum of or er (A1)		eck all that apply Water-Stai	/)	vf = very fine; + =	= heavy (more o <u>Secondary In</u>	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b>	ay)
Depth (inches): marks: S ck refusal at 14 YDROLOGY otland Hydrolo mary Indicators Surface Wate High Water T	S = sand; Si = silt 4 inches. Y ogy Indicators: s (minimum of or er (A1) Fable (A2)		eck all that apply Water-Stai 1, 2, 4A	/) ined Leaves (B9) <b>(ex</b> o , <b>and 4B)</b>	vf = very fine; + =	= heavy (more o <u>Secondary In</u> Water-St <b>4A, an</b>	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> d <b>4B)</b>	ay)
Depth (inches): marks: S ck refusal at 14 YDROLOGY etland Hydrolo mary Indicators Surface Wate	S = sand; Si = sill 4 inches. Y ogy Indicators: s (minimum of or er (A1) Fable (A2) V3)		weck all that apply Water-Stai 1, 2, 4A Salt Crust	/) ined Leaves (B9) <b>(ex</b> o , <b>and 4B)</b>	vf = very fine; + =	= heavy (more of <u>Secondary In</u> Water-St Drainage	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b>	ay) equired) ILRA 1, 2,
Depth (inches): marks: S ck refusal at 14 Characteristics of the second stand Hydrolo mary Indicators Surface Wate High Water T Saturation (A Water Marks	S = sand; Si = silt 4 inches. Y ogy Indicators: s (minimum of or er (A1) Fable (A2) A3) ; (B1)		weck all that apply Water-Stai 1, 2, 4A Salt Crust	/) ined Leaves (B9) <b>(ex</b> o , <b>and 4B)</b> (B11) vertebrates (B13)	vf = very fine; + =	= heavy (more of Secondary In Water-St 4A, an Drainage Dry-Seas	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) <b>(N</b> d <b>4B)</b> Patterns (B10)	ay) equired) MLRA 1, 2,
Depth (inches): marks: S ck refusal at 14 YDROLOGY taland Hydrolo mary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Dep	S = sand; Si = silt 4 inches. Y ogy Indicators: s (minimum of or er (A1) Table (A2) \3) s (B1) eposits (B2)		weck all that apply Water-Stain 1, 2, 4A Salt Crust Aquatic Inv Hydrogen	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1)	vf = very fine; + =	= heavy (more of Secondary In Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Im	ay) equired) MLRA 1, 2,
Depth (inches): marks: S ck refusal at 14 YDROLOGY atland Hydrolo mary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Dep Drift Deposits	S = sand; Si = silt 4 inches. Y Dogy Indicators: s (minimum of or er (A1) Table (A2) (A3) s (B1) eposits (B2) s (B3)		Water-Stai Water-Stai <b>1, 2, 4A</b> Salt Crust Aquatic Inv Hydrogen	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Li	vf = very fine; + =	= heavy (more of <u>Secondary In</u> Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial In whic Position (D2)	ay) equired) MLRA 1, 2,
Depth (inches): marks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or (A	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4)		Water-Stai Water-Stai <b>1, 2, 4A</b> Salt Crust Aquatic Inv Hydrogen Oxidized R	/) ined Leaves (B9) <b>(ex</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Lir of Reduced Iron (C4)	vf = very fine; + =	= heavy (more of <u>Secondary In</u> Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Im hic Position (D2) Aquitard (D3)	ay) equired) MLRA 1, 2,
Depth (inches): marks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Deposits Algal Mat or C Iron Deposits	S = sand; Si = silt 4 inches. Y pgy Indicators: s (minimum of or er (A1) Table (A2) (A3) s (B1) s (B1) s (B2) s (B3) Crust (B4) s (B5)		Water-Stai <b>1, 2, 4A</b> Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Lir of Reduced Iron (C4) n Reduction in Tilled S	vf = very fine; + = cept MLRA ving Roots (C3) Soils (C6)	= heavy (more of Secondary In Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial In whic Position (D2)	ay) <u>equired)</u> <b>/ILRA 1, 2,</b> ) hagery (C9)
Depth (inches): emarks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or ( Iron Deposits Surface Soil (	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) A3) s (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6)	e required; ch	Water-Stai UWater-Stai 1, 2, 4A Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iro Stunted or	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Li of Reduced Iron (C4) n Reduction in Tilled 3 Stressed Plants (D1)	vf = very fine; + = cept MLRA ving Roots (C3) Soils (C6)	= heavy (more of <u>Secondary In</u> Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial In hic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) ( <b>LRI</b>	ay) equired) MLRA 1, 2, ) nagery (C9)
Depth (inches): marks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or (C Iron Deposits Surface Soil (C Inundation Via	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial In	e required; ch	Water-Stai UWater-Stai 1, 2, 4A Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iro Stunted or	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Lir of Reduced Iron (C4) n Reduction in Tilled S	vf = very fine; + = cept MLRA ving Roots (C3) Soils (C6)	= heavy (more of <u>Secondary In</u> Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial In blic Position (D2) Aquitard (D3) ttral Test (D5)	ay) equired) MLRA 1, 2, ) nagery (C9)
Depth (inches): emarks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators 	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) (A3) (B1) eposits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial In getated Concave	e required; ch	Water-Stai UWater-Stai 1, 2, 4A Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iro Stunted or	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Li of Reduced Iron (C4) n Reduction in Tilled 3 Stressed Plants (D1)	vf = very fine; + = cept MLRA ving Roots (C3) Soils (C6)	= heavy (more of <u>Secondary In</u> Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial In hic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) ( <b>LRI</b>	ay) equired) MLRA 1, 2, ) nagery (C9)
Depth (inches): marks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Via Sparsely Veg	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) A3) 5 (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial In getated Concave Dns:	<u>e required; ch</u> nagery (B7) Surface (B8)	Water-Stain Water-Stain 1, 2, 4A Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Lir of Reduced Iron (C4) n Reduction in Tilled S Stressed Plants (D1) plain in Remarks)	vf = very fine; + = cept MLRA ving Roots (C3) Soils (C6)	= heavy (more of <u>Secondary In</u> Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A	clay); - = light (less cl dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial In hic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) ( <b>LRI</b>	ay) equired) MLRA 1, 2, ) nagery (C9)
Depth (inches): marks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or (C Iron Deposits Surface Soil (C Inundation Via Sparsely Veg etd Observatio urface Water Pr	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) (A3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial In getated Concave Dns: resent? Ye	<u>e required; ch</u> nagery (B7) Surface (B8) s	Water-Stain Water-Stain 1, 2, 4A Salt Crust Aquatic Inv Hydrogen B Oxidized R Presence of Recent Iron Stunted or Other (Exp No X	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Li of Reduced Iron (C4) n Reduction in Tilled 3 Stressed Plants (D1) olain in Remarks)	ving Roots (C3) Soils (C6) (LRR A)	= heavy (more of Secondary In Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B</b> ) Patterns (B10) on Water Table (C2) n Visible on Aerial In blic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) ( <b>LRI</b> ave Hummocks (D7)	ay) <u>equired)</u> <b>/ILRA 1, 2,</b> ) hagery (C9) <b>R A</b> )
Depth (inches): marks: Sock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Del Drift Deposits Algal Mat or (C Iron Deposits Surface Soil (C Inundation Via Sparsely Veg Eld Observatio urface Water Pro- vater Table Press	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) A3) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial In getated Concave Dns: Present? Ye	<u>e required; ch</u> hagery (B7) Surface (B8) ss	Water-Stai 1, 2, 4A Salt Crust Aquatic Inv Hydrogen 3 Oxidized R Presence 0 Recent Iro Stunted or Other (Exp No X	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Lir of Reduced Iron (C4) n Reduction in Tilled 3 Stressed Plants (D1) olain in Remarks) Depth (inches): Depth (inches):	ving Roots (C3) Soils (C6) (LRR A)	= heavy (more of Secondary In Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Im hic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) (LRI ave Hummocks (D7)	ay) <u>equired)</u> <b>//LRA 1, 2,</b> ) nagery (C9) <b>R A</b> ) ?
Depth (inches): emarks: S bock refusal at 14 YDROLOGY etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or ( Iron Deposits Surface Soil ( Inundation Vi	S = sand; Si = silt 4 inches. Y Dgy Indicators: s (minimum of or er (A1) Table (A2) A3) 5 (B1) 2005its (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial In getated Concave Dns: Present? Ye ent? Ye	<u>e required; ch</u> hagery (B7) Surface (B8) ss	Water-Stain Water-Stain 1, 2, 4A Salt Crust Aquatic Inv Hydrogen B Oxidized R Presence of Recent Iron Stunted or Other (Exp No X	/) ined Leaves (B9) <b>(exc</b> , <b>and 4B)</b> (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along Li of Reduced Iron (C4) n Reduction in Tilled 3 Stressed Plants (D1) olain in Remarks)	ving Roots (C3) Soils (C6) (LRR A)	= heavy (more of Secondary In Water-St <b>4A, an</b> Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	dicators (2 or more r ained Leaves (B9) ( <b>N</b> <b>d 4B</b> ) Patterns (B10) on Water Table (C2) n Visible on Aerial In blic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) ( <b>LRI</b> ave Hummocks (D7)	ay) <u>equired)</u> <b>/ILRA 1, 2,</b> ) hagery (C9) <b>R A</b> )

Investigativity         C. Moler, J. Spears         Section, Tommship, Range, Sec. 20, T. ZN, R. 1W           Landform (initiation: immon, etc.)         Hillacop         Local relief (concer, corres, nore)         Conceive         Slope (%);         30           Sold Mouth Name:         17E: Coole sett Carry, 30 to 60 percent slopes         NW (classification:         NW (classification:         New (classification:	Project/Site: Burlington Creek Forest OHW	Delineation	City/County:	Portland / Mu	Itnomah	Sampling Date	e: <u>9/15/202</u> 1	1
Landform (LRR): A Northwest Foresta and Coast Let 45.65625 Long -122.83630 Data:: WOS 1924 Subregion (LRR): A Northwest Foresta and Coast Let 45.65625 NW (Classification: Are Understand Coast 100 00 percent slopes NW classification: Are VagetationSoilor Hydrology	Applicant/Owner: Metro				State: OR	Sampling	J Point:	SP8
Landform (LRR): A Northwest Foresta and Coast Let 45.65625 Long -122.83630 Data:: WOS 1924 Subregion (LRR): A Northwest Foresta and Coast Let 45.65625 NW (Classification: Are Understand Coast 100 00 percent slopes NW classification: Are VagetationSoilor Hydrology	Investigator(s): C. Moller, J. Spears		Section, 1	Fownship, Rang	je: Sec. 20, T. 2N, R. 1	W		
Soli Map Unit Name       THE Gobie shi toms, 30 to 60 percent slopes       NMI classification         Are admatic / hydrologie conditions on the site typical for this time of year?       Yes       X       No       (if no, explain in Remarks)         Are Vegetation	Landform (hillslope, terrace, etc.): Hillslope			Local relief	(concave, convex, none):	Concave	Slope (%):	30
Soli Map Unit Name       THE Gobie shi toms, 30 to 60 percent slopes       NMI classification         Are admatic / hydrologie conditions on the site typical for this time of year?       Yes       X       No       (if no, explain in Remarks)         Are Vegetation	Subregion (LRR): A, Northwest Forests and C	Coast	Lat: 45.635825	 Lon	Ig: -122.835936	Datun	n: WGS 198	34
Are elimited: /hydrologic conditions on the site typical for the time of lyear?       Yes       No			ent slopes	-		classification:		
Are Vegetation       Soil       or Hydrology       significantly disturbed?       Are Normat Concentations Present?       Yes X No         Are Vegetation       Soil       or Hydrology       naturally problematic?       (If needed, explain any answers in Ramarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, stc.       Hydrologit (If needed, explain any answers in Ramarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, stc.       Hydrologit (If needed, explain any answers in Ramarks.)         Vesterstring       No       X       is the Sampled Area within a Wetland?       No         Yes       No       X       is the Sampled Area within a Wetland?       No       X         Precipitation prior to fieldwork:       Nore       Nore       X       Nore       X         Indicator       Absolute       Dominant       Indicator       Number of Dominant Species       1         1.       Attach site       60%       Yes       FAC       Total Number of Dominant Species       1(A)         2.       .       60%       Yes       FAC       Prevealence Index worksheet:       5       (B)         3.       .       .       .       .       .       .       .       . <t< td=""><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td>-</td><td>Ye</td><td></td><td></td><td>blain in Rem</td><td>arks)</td></t<>	· · · · · · · · · · · · · · · · · · ·		-	Ye			blain in Rem	arks)
And Vogetation	Are Vegetation ,Soil	, or Hydrology	significantly c	listurbed? A	Are "Normal Circumstan	ices" present?	Yes X	No
Hydrophytic Vagetation Present?       Yes       No       X       No       No       X       No </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>arks.)</td> <td></td>							arks.)	
Hydric Sol Present?       Yes       No       X       Is the Sampled Area         Within a Wetland?       Yes       No       X         Within a Wetland?       Yes       No       X         Precipitation prior to fieldwork:       None         Remarks:         VESETTION         Ves       Dominant         1. Anus nubra       B0%       Yes       FAC         1. Anus nubra       B0%       Yes       FAC         1. Anus nubra       B0%       Yes       FAC         SabilingShrub Stratum       (Piot size: _10'r)       0%       Yes         1. Rubus armeniecus       30%       Yes       FAC         2 Acer circinatum       10%       Yes       FAC         1. Rubus armeniecus       30%       Yes       FAC         2 Acer circinatum       10%       Yes       FAC         1. Rubus armeniecus       50%       Yes       FAC         2 Acer circinatum       10%       Yes       FAC         1. Abus armeniecus       50%       = Total Cover       FAC UU         2. Acer circinatum       10%       Yes       FAC UU         2. Acer circinatum       10%	SUMMARY OF FINDINGS - Attach	site map show	wing sampling	point locati	ons, transects, in	nportant fea	tures, etc	с.
Wetland Hydrology Present?         Yes         No         X         within a Wetland?         Yes         No         X           Precipitation prior to fieldwork:         None         None         No         X         No         X           Precipitation prior to fieldwork:         None         Species?         Status         Dominant         Indicator         Nomber of Dominant Species           1         Almos rubra         60%         Yes         FAC         That Are OBL, FACW, or FAC:         3         (A)           3.	Hydrophytic Vegetation Present?	Yes X	No					
Precipitation prior to fieldwork:         None           Remarks:	Hydric Soil Present?	Yes	No X	Is the Samp	led Area			
Seminarks:         VEGETATION           Thee Stratum         (Plot size:30' r_ )         Absolute % Cover         Dominant Species?         Status         Dominant Species         Number of Dominant Species           1.         Ahus rubra         60%         Yes         FAC         That Are OBL, FACW, or FAC:3(A)           3.	Wetland Hydrology Present?	Yes	No X	within a Wet	tland? Yes	No	X	
Absolute         Dominant         Indicator         Dominant         Indicator           1.         Alus rubra         60%         Yes         FAC           3.         60%         Yes         FAC           8apling/Shrub Stratum         (Plot size: 10 r. 1)         5           4.         10%         Yes         FAC           7         Rubus armeniacus         30%         Yes           2.         60%         Yes         FAC           7         704 % Cover of:         Multiply by:           7         10%         Yes         FAC           7         50%         = Total Cover         FAC species         0         x4 =         120           10         20%         Yes         FAC         100         x3 =         300           7         50%         = Tota	Remarks:							
Tree Stratum       (Plot size: 30 r.)       % Cover       Species?       Status       Number of Dominant Species         1.       Alnus rubra       60%       Yes       FAC       That Are OBL, FACW, or FAC: 3       (A)         2.	VEGETATION							
1.       Anus rubre       60%       Yes       FAC       That Are OBL, FACW, or FAC:       3       (A)         2.				Indicator				
2.       00.%       Tes       TAC       Inter Net CoL, FACW, of FAC.       J       (A)         3.	<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominan	t Species		
3.		60%	Yes	FAC	That Are OBL, FAC	N, or FAC:	3	(A)
4.								
Saping/Shrub Stratum         (Plot size:10' r_ )         60%         = Total Cover         Percent of Dominant Species           1.         Rubus armeniacus         30%         Yes         FAC         That Are OBL, FACW, or FAC:         60% (A/B)           2.         Acer circinatum         10%         Yes         FAC         That Are OBL, FACW, or FAC:         60% (A/B)           3.         Sambucus racemosa         10%         Yes         FACU         Prevalence Index worksheet:								
Sapling/Shrub Stratum       (Plot size: 10' r )       Percent of Dominant Species         1.       Rubus armeniacus       30%       Yes       FAC       That Are OBL, FACW, or FAC: 60% (A/B)         2.       Acer circinatum       10%       Yes       FAC       That Are OBL, FACW, or FAC: 60% (A/B)         3.       Sambucus racemosa       10%       Yes       FAC       That Are OBL, FACW, or FAC: 60% (A/B)         4.	4. 		·		Species Across All S	Strata:	5	(B)
1.       Rubus armeniacus       30%       Yes       FAC         2.       Acer circinatum       10%       Yes       FAC         3.       Sambucus racemosa       10%       Yes       FAC         4.	Carling/Chryph Ctratum (Dist size) 401		= Total Cover					
2.       Acer circinatum       10%       Yes       FAC       Prevalence Index worksheet:         3.       3.       10%       Yes       FAC       Prevalence Index worksheet:         5.       5.       50%       = Total Cover       FAC becies       0       x 2 =       0         4.       50%       = Total Cover       FAC becies       0       x 3 =       300         Herb Stratum       (Plot size: _5'r_)       50%       = Total Cover       FAC becies       0       x 3 =       300         1.       Polystichum munitum       20%       Yes       FACU       UPL species       0       x 5 =       0         2.       0       Yes       FACU       UPL species       0       x 5 =       0         3.       20%       Yes       FACU       UPL species       0       x 5 =       0         4.       2.       0       x 5 =       0       20%       Kee Stratum       Yes       Yes       Yes         4.       1       0       Prevalence Index morks or on a separate sheet       3.30       Yes       Xee Cound in Memarks or on a separate sheet       Yes       Yes       Yes       Yes       Yes       Yes       Yes       Yes <td></td> <td><u>r</u>)</td> <td></td> <td></td> <td>Percent of Dominant</td> <td>t Species</td> <td></td> <td></td>		<u>r</u> )			Percent of Dominant	t Species		
3.       20%       Yes       FACU       Total % Cover of:       Multiply by:         4.       10%       Yes       FACU       OBL species       0       x 1 =       0         5.       50%       = Total Cover       FACW species       0       x 2 =       0         1.       Polystichum munitum       20%       Yes       FACU       UPL species       0       x 4 =       120         2.       0       Yes       FACU       UPL species       0       x 5 =       0         3.       0       Yes       FACU       UPL species       0       x 5 =       0         3.       0       Yes       FACU       UPL species       0       x 5 =       0         2.       0       Yes       FACU       UPL species       0       x 5 =       0         3.       1       Prevalence Index = B/A =       3.23       4       4       3       Prevalence Index is \$5.0%       3       7       3       3       - Prevalence Index is \$5.0%       3       - Prevalence Index is \$5.0%       3       - Prevalence Index is \$5.0^1       4       4       Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)       5       - Wethand Non-Vascular Plant		30%	Yes	FAC	That Are OBL, FAC	N, or FAC:	<u>60%</u>	(A/B)
4.       10.0       <	Acci circinatum	10%	Yes	FAC				
5. $50\%$ = Total Cover       FACW species $0$ $x 2 =$ $0$ Herb Stratum       (Plot size: $5'r$ ) $20\%$ Yes       FACU       FACU species $300$ $x 4 =$ $120$ 1.       Polystichum munitum $20\%$ Yes       FACU       UPL species $0$ $x 5 =$ $0$ 2. $20\%$ Yes       FACU       UPL species $0$ $x 5 =$ $0$ 3. $20\%$ Yes       FACU       UPL species $0$ $x 5 =$ $0$ 3. $20\%$ Yes       FACU       UPL species $0$ $x 5 =$ $0$ 3. $20\%$ Yes       FACU       UPL species $0$ $x 5 =$ $0$ 3. $20\%$ $20\%$ $20\%$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$ $7$ $3$	<sup>3.</sup> Sambucus racemosa	10%	Yes	FACU	I otal % Cover	of: Multiply b	<u>y:</u>	
50%       = Total Cover       FAC species       100       x 3 =       300         1.       Polystichum munitum       20%       Yes       FACU       UPL species       0       x 5 =       0         2.	4.				· · · · ·	0 x 1 =	0	
Herb Stratum       (Plot size: _5' r_ )         1.       Polystichum munitum       20%       Yes       FACU         2.       0       x 5 =       0         3.	5					0 x 2 =	0	
1.       Polystichum munitum       20%       Yes       FACU       UPL species       0       x.7 =       0         2.		50%	= Total Cover		FAC species 1	100 x 3 =	300	
2.       Column Totals: 130 (A) 420 (B)         3.       Prevalence Index = B/A = 3.23         4.       Hydrophytic Vegetation Indicators:         5.       1 - Rapid Test for Hydrophytic Vegetation         6.       X 2 - Dominance Test is >50%         7.       3 - Prevalence Index is ≤3.0 <sup>1</sup> 8.	<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				· · ·	<u>30 x 4 =</u>	120	
3.       Prevalence Index = B/A = 3.23         4.       Hydrophytic Vegetation Indicators:         5.       1 - Rapid Test for Hydrophytic Vegetation         6.       X 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)         10.       5 - Wetland Non-Vascular Plants1         11.       Problematic Hydrophytic Vegetation 1 (Explain)         11.       20% = Total Cover         Woody Vine Stratum       0% = Total Cover         Wgrephytic       Yes X No         0%       Present?	1. Polystichum munitum	20%	Yes	FACU	UPL species	0 x 5 =	0	
4.	2				Column Totals: 1	130 (A)	420	(B)
5.	3				Prevalence Inde	ex = B/A =	<u>3.23</u>	
6.       X 2 - Dominance Test is >50%         7.       3 - Prevalence Index is ≤3.0 <sup>1</sup> 8.       4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         9.       5 - Wetland Non-Vascular Plants <sup>1</sup> 10.       5 - Wetland Non-Vascular Plants <sup>1</sup> 11.       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         11.       20%         20%       = Total Cover         Woody Vine Stratum       (Plot size: 10' r)         1.       0%         2.       0%         9.       Hydrophytic         Vegetation       Yes X No         Present?       No	4.				Hydrophytic Vegeta	ation Indicators	s:	
7.       3 - Prevalence Index is ≤3.0 <sup>1</sup> 8.       4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         9.       5 - Wetland Non-Vascular Plants <sup>1</sup> 10.       5 - Wetland Non-Vascular Plants <sup>1</sup> 11.       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         11.       20% = Total Cover         Woody Vine Stratum       (Plot size: 10' r.)         1.       0% = Total Cover         0% Bare Ground in Herb Stratum       80%	5.				1 - Rapid Test fo	or Hydrophytic V	egetation	
8.       4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         9.       5 - Wetland Non-Vascular Plants <sup>1</sup> 10.       5 - Wetland Non-Vascular Plants <sup>1</sup> 11.       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         11.       20%         20%       = Total Cover         11.       0%         20%       = Total Cover         11.       1         20%       = Total Cover         11.       0%         20%       = Total Cover	6.				X 2 - Dominance T	īest is >50%		
9.	7.				3 - Prevalence Ir	ndex is ≤3.0 <sup>1</sup>		
9.	8.				4 - Morphologica	al Adaptations <sup>1</sup> (	Provide sup	porting
11.	9.		·		data in Rema	arks or on a sep	arate sheet)	
11.	10.		·		5 - Wetland Non	I-Vascular Plant	s <sup>1</sup>	
Woody Vine Stratum       (Plot size: 10' r)         1.       20%         2.       0%         80%       Total Cover			·					in)
I.         I. <thi.< th="">         I.         I.         I.<!--</td--><td></td><td></td><td>= Total Cover</td><td></td><td></td><td></td><td></td><td>,</td></thi.<>			= Total Cover					,
2.		<u>r_</u> )			be present.			
0%     = Total Cover     Vegetation     Yes     X     No       % Bare Ground in Herb Stratum     80%     Present?	2.		·		Hydrophytic			
% Bare Ground in Herb Stratum 80% Present?		0%	= Total Cover			Yes X N	lo	
	% Bare Ground in Herb Stratum 80%				_			
	Remarks:				Entere	ed by: clm	QC by: cmw	1

Depth	Mati	ix			Redox Fe	atures			
· · · -	Color (moist)	%	Color (mo	oist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rema
0-6	10YR 3/2	100			,,,	. )   0		SiL	dry
6-20+	10YR 4/3	100						SiL	
0-20+	101K 4/3	100						SIL	dry
	<u> </u>								<b>.</b>
	<u> </u>								
							-		
pe: C=Concentra	ation, D=Deplet	on, RM=Red	uced Matrix CS	S=Covered	d or Coated Sa	and Grains.	<sup>2</sup> Location: PL=	Pore Lining, M=Matri	x.
dric Soil Indicato	ors: (Applicabl	e to all LRRs	, unless other	rwise note	ed.)		Indicators for	or Problematic Hydr	ic Soils³:
Histosol (A1)			Sandy Re	edox (S5)			2 cm Mu	ick (A10)	
Histic Epipedon	(A2)			Matrix (S6	5)		Red Par	ent Material (TF2)	
Black Histic (A3	. ,			``	, eral (F1) <b>(exce</b>	pt MLRA 1)		allow Dark Surface (T	F12)
- Hydrogen Sulfid	,			leyed Mati	. , .	,		xplain in Remarks)	·-,
Depleted Below	. ,	A11)		Matrix (F3					
		¬++)	·	· ·	,		<sup>3</sup> Indicators of	f hydrophytic vegetati	on and
Thick Dark Surfa	· · /			ark Surfac	· · /				
_Sandy Mucky M	( )			Dark Surf	, <i>,</i>		-	drology must be pres	
_Sandy Gleyed N	/latrix (S4)		Redox De	epressions	s (F8)		unless dist	urbed or problematic.	
	sand; Si = silt;	- C = clay; L =	loam or loamy	; co = coar	rse; f = fine; vf		Hydric Soil Pres	sent? Yes clay); - = light (less cl	No X
Depth (inches): emarks: S = YDROLOGY		- C = clay; L =	loam or loamy	; co = coar	rse; f = fine; vf		-		
Depth (inches): marks: S = YDROLOGY stland Hydrology	Indicators:	-			rse; f = fine; vf		- = heavy (more		ay)
Depth (inches): marks: S = YDROLOGY stland Hydrology	n <b>dicators</b> :	-	eck all that app	ly)	rse; f = fine; vf	f = very fine; +	- = heavy (more Secondary Ir	clay); - = light (less cl	ay) equired)
Depth (inches): marks: S = YDROLOGY etland Hydrology mary Indicators (n 	r Indicators: minimum of one (A1)	-	eck all that app Water-St	ly) ained Lea	ves (B9) <b>(exc</b>	f = very fine; +	- = heavy (more Secondary Ir Water-S	clay); - = light (less cl	ay) equired)
Depth (inches):         marks:       S =         /DROLOGY         tland Hydrology         mary Indicators (n         Surface Water (n         High Water Table	r Indicators: minimum of one (A1)	-	eck all that app Water-St 1, 2, 4/	ly) ained Leav <b>A, and 4B</b>	ves (B9) <b>(exc</b>	f = very fine; +	= heavy (more <u>Secondary Ir</u> Water-S <b>4A, ar</b>	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) (N nd 4B)	ay) equired)
Depth (inches): marks: S = YDROLOGY etland Hydrology mary Indicators (n Surface Water (A High Water Table Saturation (A3)	n <b>dicators:</b> minimum of one (A1) le (A2)	-	eck all that app Water-St. 1, 2, 4 Salt Crus	<u>ly)</u> ained Lea∘ <b>A, and 4B</b> t (B11)	ves (B9) <b>(exc</b> o	f = very fine; +	- = heavy (more <u>Secondary Ir</u> Water-S 4A, ar	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10)	ay) equired) ILRA 1, 2,
Depth (inches):         marks:       S =         YDROLOGY         etland Hydrology         mary Indicators (n         Surface Water (a         High Water Table         Saturation (A3)         Water Marks (B	(Indicators: minimum of one (A1) de (A2) 1)	-	eck all that app Water-St 1, 2, 4 Salt Crus Aquatic Ir	ly) ained Leav <b>A, and 4B</b> t (B11) nvertebrate	ves (B9) <b>(exc</b> a ) es (B13)	f = very fine; +	<u>Secondary Ir</u> <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seas	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2)	ay) equired) /ILRA 1, 2,
Depth (inches): marks: S = CDROLOGY taland Hydrology mary Indicators (n Surface Water (A High Water Table Saturation (A3) Water Marks (B Sediment Depos	r Indicators: minimum of one (A1) de (A2) (1) sits (B2)	-	eck all that app Water-St. 1, 2, 4, Salt Crus Aquatic In Hydroger	<u>ly)</u> ained Leav <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C	ves (B9) <b>(exc</b> a <b>)</b> es (B13) Ddor (C1)	f = very fine; +	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seat	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) <b>(N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Irr	ay) equired) /ILRA 1, 2,
Depth (inches): marks: S = YDROLOGY etland Hydrology mary Indicators (n Surface Water (n High Water Tabl Saturation (A3) Water Marks (B Sediment Depose Drift Deposits (B	(A1) (A1) (A2) (1) sits (B2) (33)	-	eck all that app Water-St 1, 2, 4/ Salt Crus Aquatic Ir Hydroger Oxidized	ly) ained Lean <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C Rhizosphe	ves (B9) <b>(exco )</b> es (B13) Odor (C1) eres along Liv	f = very fine; +	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seat Saturation Geomory	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2)	ay) equired) /ILRA 1, 2,
Depth (inches): marks: S = YDROLOGY etland Hydrology imary Indicators (n Surface Water (a High Water Table Saturation (A3) Water Marks (B Sediment Depose Drift Deposits (B Algal Mat or Cru	(A1) (A1) (A2) (I) (I) (I) (I) (I) (I) (I) (I) (I) (I	-	eck all that app Water-St <b>1, 2, 4</b> Salt Crus Aquatic Ir Hydroger Oxidized Presence	ly) ained Lear <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C Rhizosphe e of Reduc	ves (B9) <b>(exc</b> <b>)</b> es (B13) Ddor (C1) eres along Liv red Iron (C4)	f = very fine; +	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seas Saturatio Shallow	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3)	ay) equired) /ILRA 1, 2,
Depth (inches): marks: S = YDROLOGY etland Hydrology imary Indicators (n Surface Water (n Surface Water (n High Water Table Saturation (A3) Water Marks (B Sediment Depose Drift Deposits (B Algal Mat or Cru Iron Deposits (B	(A1) (A1) (A1) (A2) (1) (1) (1) (33) (33) (33) (34) (35)	-	eck all that app Water-St. <b>1, 2, 4</b> Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir	l <u>y)</u> ained Leav <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct	ves (B9) <b>(exc</b> <b>)</b> odor (C1) eres along Liv red Iron (C4) tion in Tilled S	f = very fine; + ept MLRA ing Roots (C3	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seas Saturation Shallow FAC-Net	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5)	ay) equired) <b>/ILRA 1, 2,</b> hagery (C9)
Depth (inches): marks: S = YDROLOGY atland Hydrology mary Indicators (n Surface Water (n Surface Water Table Saturation (A3) Water Marks (B Sediment Deposits Drift Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra	(A1) Minimum of one (A1) Me (A2) (1) sits (B2) (33) ust (B4) (35) acks (B6)	required; che	eck all that app Water-St <b>1, 2, 4</b> Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted c	ly) ained Lear <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct on Reduct	ves (B9) <b>(exc</b> <b>)</b> Ddor (C1) eres along Liv ed Iron (C4) tion in Tilled S d Plants (D1)	f = very fine; + ept MLRA ing Roots (C3	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seat Saturatic Saturatic Shallow FAC-Net Raised A	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	ay) equired) MLRA 1, 2, hagery (C9)
Depth (inches): marks: S = YDROLOGY etland Hydrology imary Indicators (n Surface Water (a High Water Table Saturation (A3) Water Marks (B Sediment Deposits Drift Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Inundation Visib	(A1) (A1) (A1) (A2) (A2) (A2) (A3) (A2) (A2) (A3) (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	agery (B7)	eck all that app Water-St <b>1, 2, 4</b> Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted c	l <u>y)</u> ained Leav <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct	ves (B9) <b>(exc</b> <b>)</b> Ddor (C1) eres along Liv ed Iron (C4) tion in Tilled S d Plants (D1)	f = very fine; + ept MLRA ing Roots (C3	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seat Saturatic Saturatic Shallow FAC-Net Raised A	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B</b> ) e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5)	ay) equired) MLRA 1, 2, hagery (C9)
Depth (inches): marks: S = YDROLOGY etland Hydrology imary Indicators (n Surface Water (n High Water Tabl Saturation (A3) Water Marks (B Sediment Deposits Drift Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra	(A1) (A1) (A1) (A2) (A2) (A2) (A3) (A2) (A2) (A3) (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	agery (B7)	eck all that app Water-St <b>1, 2, 4</b> Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted c	ly) ained Lear <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct on Reduct	ves (B9) <b>(exc</b> <b>)</b> Ddor (C1) eres along Liv ed Iron (C4) tion in Tilled S d Plants (D1)	f = very fine; + ept MLRA ing Roots (C3	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seat Saturatic Saturatic Shallow FAC-Net Raised A	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	ay) equired) MLRA 1, 2, hagery (C9)
Depth (inches): marks: S = YDROLOGY etland Hydrology imary Indicators (n Surface Water (n Gurface Water Table Saturation (A3) Water Marks (B Sediment Deposits Drift Deposits (B Algal Mat or Cruu Iron Deposits (B Surface Soil Cra Inundation Visib Sparsely Vegeta	(A1) (A1) (A1) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A3) (A2) (A3) (A3) (A3) (A4) (A2) (A3) (A3) (A3) (A3) (A4) (A2) (A3) (A3) (A3) (A3) (A4) (A4) (A2) (A3) (A3) (A4) (A5) (A4) (A4) (A5) (A4) (A4) (A5) (A4) (A4) (A5) (A4) (A5) (A4) (A5) (A4) (A5) (A4) (A5) (A4) (A5) (A4) (A5) (A4) (A5) (	agery (B7)	eck all that app Water-St <b>1, 2, 4</b> Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted c	ly) ained Lear <b>A, and 4B</b> t (B11) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct on Reduct	ves (B9) <b>(exc</b> <b>)</b> Ddor (C1) eres along Liv ed Iron (C4) tion in Tilled S d Plants (D1)	f = very fine; + ept MLRA ing Roots (C3	Secondary Ir <u>Secondary Ir</u> Water-S <b>4A, ar</b> Drainage Dry-Seat Saturatic Saturatic Shallow FAC-Net Raised A	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial In phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b>	ay) equired) MLRA 1, 2, hagery (C9)
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Depth (inches): marks: S = YDROLOGY Stland Hydrology mary Indicators (n Surface Water (n High Water Table Saturation (A3) Water Marks (B Sediment Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cra Inundation Visib Sparsely Vegeta Inundation Sparsely Vegeta Surface Water Presentations Stater Table Presentations	r Indicators: minimum of one (A1) ble (A2) (1) sits (B2) (33) ust (B4) (35) acks (B6) ble on Aerial Ima ated Concave S i: sent? Yes ble yes yes ringe)	agery (B7) Surface (B8)	eck all that app Water-St. <b>1, 2, 4</b> Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted c Other (E)	ly) ained Lear <b>A, and 4B</b> t (B11) nvertebrate on Sulfide C Rhizosphe e of Reduct on Reduct on Reduct or Stressed con Reduct	ves (B9) <b>(exc</b> <b>)</b> es (B13) Door (C1) eres along Liv red Iron (C4) tion in Tilled S d Plants (D1) emarks) oth (inches): oth (inches):	f = very fine; + ept MLRA ing Roots (C3 ioils (C6) (LRR A) >20 >20	Secondary Ir Secondary Ir Water-S 4A, ar Drainage Dry-Seas Saturation Shallow FAC-New Raised A Frost-He Wetland	clay); - = light (less cl ndicators (2 or more r tained Leaves (B9) ( <b>N</b> nd <b>4B)</b> e Patterns (B10) son Water Table (C2) on Visible on Aerial Im phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) ( <b>LRI</b> eave Hummocks (D7)	ay) equired) /ILRA 1, 2, / hagery (C9) R A)

## **APPENDIX B**

Ground-Level Site Photographs



Photo Point 1. Sample Plot (SP) 1 above OHWM/L.

Photo Point 2. SP2 above OHWM/L.



Photo Point 3. SP3 above OHWM/L.



Photo Point 4. SP4 above OHWM/L.



Photo Point 5. SP5 above OHWM/L.



Photo Point 6. SP6 above OHWM/L.



Photo Point 7. SP7 above OHWM/L.



Photo Point 8. SP8. above OHWM/L.

## **APPENDIX C**

## **Precipitation Data**

				i oi uallu Afea	, 0 . (11	reauEx) ·	- September 2021		
Date		Temper			HDD	CDD	Precipitation	New Snow	Snow Depth
	Maximum	Minimum	Average	Departure			•		
2021-09-01	79	51	65.0	-3.7	0	0	0.00	0.0	0
2021-09-02	86	53	69.5	1.0	0	5	0.00	0.0	0
2021-09-03	83	53	68.0	-0.3	0	3	0.00	0.0	0
2021-09-04	88	55	71.5	3.3	0	7	0.00	0.0	0
2021-09-05	86	60	73.0	5.0	0	8	0.00	0.0	0
2021-09-06	84	62	73.0	5.2	0	8	0.00	0.0	0
2021-09-07	89	59	74.0	6.4	0	9	0.00	0.0	0
2021-09-08	88	61	74.5	7.1	0	10	Т	0.0	0
2021-09-09	86	60	73.0	5.8	0	8	0.00	0.0	0
2021-09-10	70	61	65.5	-1.5	0	1	0.00	0.0	0
2021-09-11	81	54	67.5	0.7	0	3	0.00	0.0	0
2021-09-12	76	60	68.0	1.5	0	3	Т	0.0	0
2021-09-13	75	51	63.0	-3.3	2	0	0.00	0.0	0
2021-09-14	84	53	68.5	2.4	0	4	0.00	0.0	0
2021-09-15	72	54	63.0	-2.8	2	0	0.00	0.0	0
2021-09-16	78	45	61.5	-4.1	3	0	0.00	0.0	0
2021-09-17	78	56	67.0	1.7	0	2	0.07	0.0	0
2021-09-18	69	56	62.5	-2.5	2	0	1.31	0.0	0
2021-09-19	67	53	60.0	-4.7	5	0	1.14	0.0	0
2021-09-20	73	50	61.5	-2.9	3	0	0.00	0.0	0
2021-09-21	86	52	69.0	4.9	0	4	0.00	0.0	0
2021-09-22	71	57	64.0	0.2	1	0	Т	0.0	0
2021-09-23	75	58	66.5	3.0	0	2	0.00	0.0	0
2021-09-24	89	56	72.5	9.3	0	8	0.00	0.0	М
2021-09-25	85	56	70.5	7.6	0	6	0.00	0.0	0
2021-09-26	75	58	66.5	4.0	0	2	0.09	0.0	0
2021-09-27	65	55	60.0	-2.2	5	0	0.87	0.0	0
2021-09-28	61	53	57.0	-4.9	8	0	0.18	0.0	0
2021-09-29	68	50	59.0	-2.5	6	0	Т	0.0	0
2021-09-30	63	51	57.0	-4.2	8	0	0.10	0.0	0
Sum	2330	1653	-	-	45	93	3.76	0.0	-
Average	77.7	55.1	66.4	1.0	-	-	-	-	0.0
Normal	76.7	54.1	65.4	-	61	73	1.52	М	-

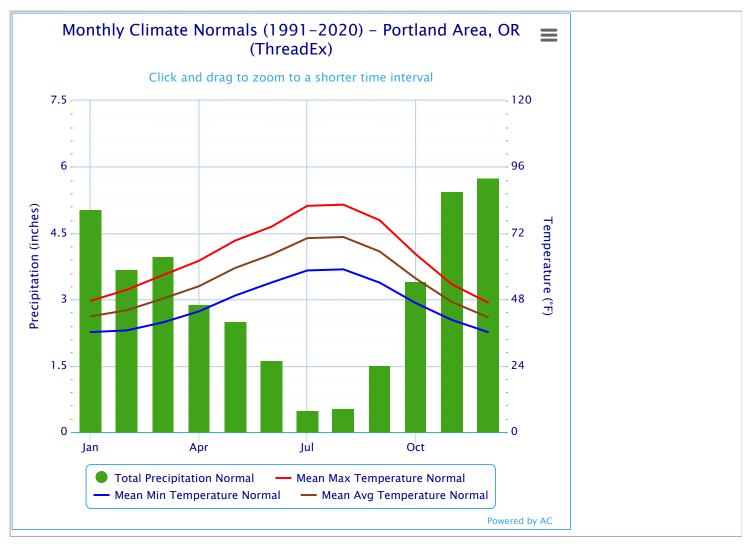
Observations for each day cover the 24 hours ending at the time given below (Local Standard Time).	
Max Temperature : midnight	
Min Temperature : midnight	
Precipitation : midnight	
Snowfall : midnight	
Snow Depth : 4am	

#### Climatological Data for PORTLAND INTL AIRPORT, OR - August 2021

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2021-08-01	89	63	76.0	36	26	0.00	0.0	0
2021-08-02	91	61	76.0	36	26	Т	0.0	0
2021-08-03	90	64	77.0	37	27	0.00	0.0	0
2021-08-04	96	62	79.0	39	29	0.00	0.0	0
2021-08-05	84	66	75.0	35	25	0.00	0.0	0
2021-08-06	83	65	74.0	34	24	0.03	0.0	0
2021-08-07	81	61	71.0	31	21	0.00	0.0	0
2021-08-08	78	59	68.5	29	19	0.00	0.0	0
2021-08-09	86	59	72.5	33	23	0.00	0.0	0
2021-08-10	93	66	79.5	40	30	0.00	0.0	0
2021-08-11	102	69	85.5	46	36	0.00	0.0	0
2021-08-12	103	70	86.5	47	37	0.00	0.0	0
2021-08-13	96	71	83.5	44	34	0.00	0.0	0
2021-08-14	93	68	80.5	41	31	0.00	0.0	0
2021-08-15	94	66	80.0	40	30	0.00	0.0	0
2021-08-16	85	62	73.5	34	24	0.00	0.0	0
2021-08-17	72	60	66.0	26	16	Т	0.0	0
2021-08-18	82	59	70.5	31	21	0.00	0.0	0
2021-08-19	83	60	71.5	32	22	0.00	0.0	0
2021-08-20	73	60	66.5	27	17	Т	0.0	0
2021-08-21	71	61	66.0	26	16	Т	0.0	0
2021-08-22	70	57	63.5	24	14	0.02	0.0	0
2021-08-23	75	48	61.5	22	12	0.00	0.0	0
2021-08-24	86	54	70.0	30	20	0.00	0.0	0
2021-08-25	81	56	68.5	29	19	0.00	0.0	0
2021-08-26	77	62	69.5	30	20	Т	0.0	0
2021-08-27	74	60	67.0	27	17	0.00	0.0	0
2021-08-28	87	54	70.5	31	21	0.00	0.0	0
2021-08-29	87	59	73.0	33	23	0.00	0.0	0
2021-08-30	71	54	62.5	23	13	0.00	0.0	М
2021-08-31	70	54	62.0	22	12	0.00	0.0	0
Average Sum	84.0	61.0	72.5	1015	705	0.05	0.0	0.0

Monthly Total Precipitation for PORTLAND INTL AIRPORT, OR

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2019	2.79	4.10	1.54	2.98	1.51	0.45	0.80	1.23	3.85	1.51	1.52	4.39	26.67
2020	7.58	1.55	2.43	0.79	2.21	3.51	0.05	0.38	2.06	1.51	5.28	5.09	32.44
2021	7.03	3.73	1.55	0.39	0.58	1.25	Т	0.05	3.76	М	М	М	М
Mean	5.80	3.13	1.84	1.39	1.43	1.74	0.28	0.55	3.22	1.51	3.40	4.74	29.56



Month	Total Precipitation Normal (inches)	Mean Max Temperature Normal (°F)	Mean Min Temperature Normal (°F)	Mean Avg Temperature Normal (°F)	
January	5.03	47.5	36.2	41.9	
February	3.68	51.5	36.8	44.1	
March	3.97	56.8	39.7	48.3	
April	2.89	62.0	43.7	52.8	
May	2.51	69.3	49.4	59.4	
June	1.63	74.3	54.1	64.2	
July	0.50	81.9	58.5	70.2	
August	0.54	82.3	58.9	70.6	
September	1.52	76.7	54.1	65.4	
October	3.42	64.4	46.7	55.6	
November	5.45	53.5	40.6	47.1	
December	5.77	46.9	36.2	41.6	
Annual	36.91	63.9	46.2	55.1	

## WETS Station: PORTLAND INTL AIRPORT, OR

#### Requested years: 1991 -

Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall	
Jan	47.5	36.2	41.9	5.03	3.71	5.89	12	-	
Feb	51.5	36.8	44.2	3.68	2.28	4.45	9	-	
Mar	56.8	39.7	48.3	3.97	2.88	4.68	11	-	
Apr	62.0	43.7	52.9	2.89	2.10	3.39	9	-	
Мау	69.3	49.4	59.4	2.51	1.36	3.05	7	-	
Jun	74.3	54.1	64.2	1.63	0.99	1.97	5	-	
Jul	81.9	58.5	70.2	0.50	0.21	0.57	2	-	
Aug	82.3	58.9	70.6	0.54	0.18	0.61	2	-	
Sep	76.7	54.1	65.4	1.52	0.66	1.81	4	-	
Oct	64.4	46.7	55.6	3.42	2.21	4.10	8	-	
Nov	53.5	40.6	47.1	5.45	3.72	6.51	12	-	
Dec	46.9	36.2	41.6	5.77	4.16	6.81	13	-	
Annual:					32.27	40.63			
Average	63.9	46.2	55.1	-	-	-	-	-	
Total	-	-	-	36.91			93	-	

#### GROWING SEASON DATES

Years with missing data:	24 deg = 0	28 deg = 0	32 deg = 0
Years with no occurrence:	24 deg = 11	28 deg = 0	32 deg = 0
Data years used:	24 deg = 30	28 deg = 30	32 deg = 30
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	1/8 to 1/7: 364 days	2/7 to 12/5: 301 days	3/18 to 11/16: 243 days
70 percent *	No occurrence	1/29 to 12/14: 319 days	3/13 to 11/22: 254 days

# \* Percent chance of the growing season occurring between the Beginning and Ending dates.

STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1938				2.10	0.57	0.34	0.17	0.49	1. 18	2. 58	4.26	4. 78	16. 47
1939	5.47	5.49	2.36	0.27	1.09	1.42	0.78	1.62	0. 55	2. 14	1.73	9. 22	32. 14
1940	2.56	11.41	4.95	3.29	1.60	0.02	0.80	0.06	3. 54	4. 13	4.53	4. 85	41. 74
1941	5.27	1.59	1.74	1.66	4.27	0.81	0.03	1.45	3. 58	2. 18	5.04	9. 11	36. 73
1942	3.63	M3.53	1.63	2.38	2.84	1.94	1.40	0.17	0. 06	3. 49	11. 57	9. 37	42. 01
1943	5.50	3.27	5.54	2.21	1.42	2.80	0.32	1.39	0. 06	5. 59	M2. 20	2. 70	33. 00
1944	2.81	3.11	1.93	2.28	1.07	0.81	0.06	0.03	2. 73	1. 64	5.00	1. 90	23. 37
1945	4.10	4.36	5.30	2.42	4.57	0.07	0.51	0.37	3. 96	2. 11	8.58	5. 61	41. 96

1946	5.12	4.99	4.23	0.78	1.24	1.91	1.08	0.18	1. 15	4. 81	7.57	5. 47	38. 53
1947	3.72	2.77	4.11	1.81	0.66	2.93	0.94	0.29	1. 06	8. 04	4.08	4. 64	35. 05
1948	5.87	5.02	4.24	3.41	3.76	1.42	0.32	1.55	3. 28	2. 39	6.89	8. 06	46. 21
1949	1.02	9.46	2.78	0.72	2.12	0.68	0.91	0.24	1. 66	2. 35	5.56	4. 86	32. 36
1950	10.10	5.77	4.76	2.74	0.57	2.50	0.50	0.72	1. 45	7. 00	8.67	6. 31	51. 09
1951	7.71	5.02	3.86	1.14	1.75	0.03	0.28	0.02	2. 55	6. 81	5.31	5. 06	39. 54
1952	4.40	3.59	3.82	1.45	0.78	2.23	Т	0.18	0. 33	0. 72	1.44	6. 76	25 70
1953	12.83	3.71	3.82	1.89	3.45	2.04	0.03	1.79	1. 16	3. 56	6.46	7. 85	48 59
1954	8.95	4.57	2.55	2.54	1.83	3.58	1.24	1.92	0. 85	3. 40	5.09	5. 01	41 53
1955	2.30	3.37	3.06	4.72	1.24	1.83	0.89	Т	2. 86	6. 69	7.34	10. 14	44 44
1956	11.66	2.04	4.30	0.53	2.50	2.03	0.01	2.56	1. 12	5. 10	1.47	3. 64	36 96
1957	2.23	4.14	7.52	1.84	1.97	0.73	0.19	0.69	0. 49	3. 53	3.07	6. 15	32 55
1958	6.56	5.13	2.20	3.33	1.35	3.04	Т	0.02	1. 05	1. 49	6.39	5. 06	35 62
1959	7.57	4.18	3.22	0.92	2.89	2.38	0.56	0.09	2. 81	3. 51	3.30	3. 08	34 51
1960	3.93	4.00	4.77	3.33	3.37	0.52	Т	1.00	1. 37	2. 39	8.63	2. 61	35
1961	4.50	8.92	6.04	3.59	2.80	0.47	0.42	1.07	0. 64	2. 89	4.67	5. 94	41 95
1962	1.58	3.43	4.25	3.15	2.56	0.78	0.06	1.49	1. 66	3. 31	9.32	2. 59	34 18
1963	2.27	3.48	4.69	3.78	2.74	1.71	1.17	0.87	0. 75	3. 04	5.64	3. 60	33 74
1964	9.51	0.78	2.28	1.56	1.04	1.96	0.68	0.90	1. 61	04 0. 84	6.78	9. 92	37
1965	7.44	2.22	1.10	2.20	1.31	0.83	0.44	0.73	0. 01	2. 03	5.64	7. 34	31 29
1966	5.74	1.70	4.71	0.85	0.91	1.02	1.19	0.59	1. 70	3. 06	5.50	6. 89	33
1967	6.21	2.02	4.31	2.17	1.02	1.01	0.00	Т	0. 76	4. 72	2.27	4. 75	29 24
1968	4.58	6.64	2.68	1.91	3.63	2.20	0.14	4.53	2. 20	5. 03	6.23	11.	50
1969	7.60	3.14	1.13	2.28	1.61	2.99	0.14	0.04	3.	3. 02	3.18	12 8.	89 37
1970	11.81	4.77	2.58	2.94	1.55	0.49	0.05	Т	86 1. 10	2. 85	5.72	12 7.	11 41
1971	7.09	3.36	4.87	2.72	1.00	1.76	0.26	0.95	3. 53	85 2. 37	5.76	49 8. 05	35 41 72
1972	5.71	4.08	5.41	2.98	2.23	0.68	0.56	0.67	3.	0. 87	3.78	8.	38
1973	3.69	1.94	2.45	1.33	1.43	1.45	0.06	1.41	06 3.	3.	11.	79 9.	82 41
1974	8.51	4.61	5.65	1.76	1.74	0.80	2.01	0.07	29 0. 21	14 2. 14	55 6.73	93 6. 05	67 40 28
1975	8.43	4.75	3.45	1.88	1.35	1.13	0.43	2.10	T	14 4. 76	4.10	05 6.	39
1976	5.14	4.92	2.93	2.34	2.29	0.78	0.66	3.29	0.	1.	0.77	68 1.	26
1977	1.07	2.49	3.50	1.04	4.30	0.83	0.39	3.26	73 3.	48 2.	5.56	38 8.	71 37
1978	4.85	3.28	1.49	3.96	3.17	1.69	1.36	2.05	33 2. 07	28 0.	3.83	98 2.	03 30
1979	2.55	6.53	2.51	2.47	2.41	0.64	0.25	1.18	07 1.	36 4.	3.38	51 7.	62 35
									75	85		23	75

1980	8.51	4.01	3.11	2.58	2.19	2.50	0.19	0.39	1. 56	1. 18	6.47	9. 72	42. 41
1981	1.47	3.86	2.33	1.79	2.25	3.23	0.24	0.15	1. 86	4. 12	4.62	8. 37	34. 29
1982	6.31	5.98	2.38	3.56	0.46	1.66	0.94	1.66	3. 98	4. 44	3.51	8. 16	43. 04
1983	6.23	7.78	6.80	1.87	1.30	1.95	2.68	2.29	0. 39	1. 95	8.65	5. 30	47. 19
1984	2.01	3.93	3.19	3.20	3.41	4.06	Т	0.09	1. 46	3. 85	9.74	2. 56	37. 50
1985	0.06	1.79	3.08	1.07	1.52	2.34	0.55	0.48	2. 76	2. 75	3.89	2. 19	22 48
1986	4.65	5.31	2.60	1.91	2.19	0.23	1.20	0.10	4. 30	1. 99	6.26	4. 30	35 04
1987	6.93	2.45	4.91	1.94	1.63	0.14	1.03	0.35	0. 30	0. 27	1.96	8. 00	29 91
1988	4.95	1.17	3.13	4.57	2.53	2.34	0.69	0.10	1. 76	0. 19	7.92	2. 37	31 72
1989	3.30	2.84	6.73	2.08	2.87	0.78	0.91	1.07	1. 48	1. 73	3.18	3. 08	30 05
1990	7.95	3.43	2.52	2.31	2.37	1.94	0.32	0.95	0. 34	4. 65	3.68	2. 40	32 86
1991	2.56	3.65	4.64	4.05	3.34	2.31	0.07	0.70	0. 02	1. 51	6.36	4. 34	33 55
1992	4.31	4.12	1.87	3.82	0.10	0.60	0.67	0.49	1. 12	2. 87	4.55	4. 98	29 50
1993	3.06	0.72	4.39	5.26	4.36	1.69	2.41	0.37	T	1. 59	1.50	5. 01	30 36
1994	3.56	4.92	1.84	1.91	0.56	1.67	0.07	0.13	1. 13	8. 41	5.91	4. 85	34 96
1995	5.56	3.19	3.82	3.49	1.65	2.62	1.23	0.81	1. 31	3. 15	10. 74	5. 91	43 48
1996	7.15	10.03	3.24	5.12	4.88	0.44	0.73	0.25	3. 05	5. 38	9.58	13. 35	63 20
1997	7.32	1.63	7.14	3.73	3.63	2.83	0.52	1.58	03 1. 98	6. 40	4.02	3. 03	43 81
1998	6.77	5.27	4.06	1.04	5.55	1.73	0.59	т	98 1. 09	40 2. 16	11. 02	6. 74	46
1999	6.63	8.73	4.03	1.56	1.97	1.73	0.51	0.75	0.	2.	6.81	3.	38
2000	5.66	4.50	3.21	1.82	2.70	1.19	0.15	0.12	10 1.	44 3.	2.46	62 3.	88 30
2001	1.47	1.29	3.11	2.85	0.91	1.79	0.95	0.74	67 0. 70	25 3. 12	6.89	47 6.	20 30
2002	6.22	3.55	3.40	2.34	1.86	1.57	0.19	0.04	1.	0.	1.91	62 8.	44 31
2003	7.64	2.37	5.75	4.37	1.49	0.31	т	0.19	54 0.	63 3.	4.09	00 7.	25 37
2004	4.86	3.95	1.53	1.01	1.78	1.12	0.04	2.68	85 1.	01 3.	2.38	45 3.	52 27
2005	1.94	1.30	3.77	3.49	4.34	2.21	0.41	1.05	03 1.	36 3.	4.98	91 7.	65 36
2006	10.92	2.15	2.96	2.46	3.00	0.92	0.47	0.10	70 0.	39 1.	11.	52 5.	10 43
2007	2.72	3.47	3.20	2.01	1.45	1.08	0.55	0.46	86 2.	39 3.	92 4.25	85 7.	00 32
2008	4.71	2.19	3.71	2.08	2.02	1.00	0.29	1.23	04 0.	26 1.	4.15	57 3.	06 27
2009	4.50	1.36	3.36	2.31	3.26	1.30	0.34	0.76	48 1.	74 3.	5.13	52 3.	12 30
2010	4.94	2.76	3.58	2.92	4.68	4.27	0.59	0.23	40 3.	02 3.	6.63	76 8.	50 46
2011	4.73	4.28	6.43	5.04	2.92	0.73	0.96	0.17	36 0.	87 2.	6.57	35 2.	18 37
2012	6.82	2.83	7.89	3.25	3.37	4.10	0.21	Т	62 0.	14 6.	8.23	51 7.	10 50
2013	3.49	1.26	1.46	2.19	4.75	1.35	Т	0.78	04 5.	14 1.	3.05	56 1.	44 26
									62	15		62	72

2014	2.70	5.12	7.52	3.03	2.39	2.33	1.05	0.01	0. 98	5. 94	2.99	6. 05	40. 11
2015	3.33	3.71	4.71	1.75	0.59	0.40	0.57	0.66	1. 26	3. 69	4.49	15. 24	40. 40
2016	7.23	4.10	4.73	1.96	1.72	1.42	0.66	0.09	1. 69	8. 31	6.83	4. 61	43. 35
2017	4.13	10.36	7.26	4.51	1.92	1.08	Т	0.06	2. 38	4. 57	6.44	3. 09	45. 80
2018	5.36	1.86	2.50	3.34	0.17	1.03	0.02	0.06	1. 59	3. 43	2.86	5. 08	27. 30
2019	2.79	4.10	1.54	2.98	1.51	0.45	0.80	1.23	3. 85	1. 51	1.52	4. 39	26. 67
2020	7.58	1.55	2.43	0.79	2.21	3.51	0.05	0.38	2. 06	1. 51	5.28	5. 09	32. 44
2021	7.03	3.73	1.55	0.39	0.58	1.25	Т	0.05	3. 76	M3. 25			21. 59

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2021-10-28

## APPENDIX D

Vegetation List

Burlington Creek Forest Ordinary High Water Mark / Line Delineation Dominant Vegetation List								
August 29 and September 4 and 15, 2021								
Common Name	Scientific Name	Wetland Indicator Status	Native and Invasive, Noxious					
vine maple	Acer circinatum	FAC	native					
big-leaf maple	Acer macrophyllum	FACU	native					
red alder	Alnus rubra	FAC	native					
western lady fern	Athyrium cyclosorum	FAC	native					
English ivy	Hedera helix	FACU	invasive, noxious					
western or pineland sword fern	Polystichum munitum	FACU	native					
Douglas-fir	Pseudotsuga menziesii	FACU	native					
Himalayan blackberry	Rubus armeniacus	FAC	invasive, noxious					
salmon raspberry, salmonberry	Rubus spectabilis	FAC	native					
California dewberry or trailing blackberry	Rubus ursinus	FACU	native					
red elderberry	Sambucus racemosa	FACU	native					
fragrant fringecup	Tellima grandiflora	FACU	native					
western arborvitae (western red cedar)	Thuja plicata	FAC	native					
stinging nettle	Urtica dioica	FAC	-					

 Wetland Indicator Status and taxonomy for the Western Mountains, Valleys, and Coast Region per the National Wetland Plant List

 2018 v3.4. Accessed May 18, 2020.

 <u>http://wetland-plants.usace.army.mil/nwpl\_static/v34/home/home.html</u>

 Native per Hitchcock & Cronquist 2018 and PLANT
 <a href="http://plants.usda.gov/">http://plants.usda.gov/</a>

 Invasive per Clean Water Services 2020
 <a href="http://cleanwaterservices.org/permits-development/design-construction-standards/">http://cleanwaterservices.org/permits-development/design-construction-standards/</a>

 Noxious per ODA 2021:
 <a href="http://cleanwaterservices.org/permits-development/design-construction-standards/">http://cleanwaterservices.org/permits-development/design-construction-standards/</a>

https://www.oregon.gov/ODA/programs/Weeds/OregonNoxiousWeeds/Pages/AboutOregonWeeds.aspx

WETLAND INDICATOR STATUS (WIS)					
OBL	Obligate Wetland Plant – Almost always occurs in wetlands (hydrophyte), rarely in uplands				
FACW	Facultative Wetland Plant - Usually occur in wetlands (hydrophyte), but may occur found in non-wetlands				
FAC	Facultative Plant – Occurs in wetlands (hydrophyte) and uplands (nonhydrophyte)				
FACU	Facultative Upland Plant - Usually occur in non-wetlands (non-hydrophyte), but may occur in wetlands				
UPL	Upland Plant - Almost always occurs in uplands (non-hydrophyte), almost never occurs in wetlands. UPL plants have a WIS in other regions				
NOL	Not Listed - Plants that are not on the National Wetland Plant List are assumed to be UPL and have no WIS in any region				

### **OWNER CONTACT**

METRO - PARKS AND NATURE KAREN VITKAY, PLA KAREN.VITKAY@OREGONMETRO.GOV 503.797.1545

#### **GENERAL NOTES**

1. Completed trails and features shall reflect professional workmanship in appearance, quality, and attention to detail. Trails and features shall be well integrated into site, aesthetically pleasing, and well-shaped, crafted, and finished according to commonly accepted best practices for high quality and sustainable natural surface trails. Work shall be completed to the Owner's satisfaction.

2. Should the contractor discover discrepancies in the contract documents, specifications, plans and/or bid form, the matter shall be immediately brought to the attention of the owner's representative, and the discrepancies corrected by written approval before proceeding.

3. Trail contractor shall leave trails and the adjacent area in a finished and natural-looking condition and minimize disturbance to natural resources to the extent possible. Construction shall leave no scars greater than three inches in diameter on live parts of native plants. Any created slash shall be dispersed away from the trail with with one surface in contact with the ground. Slash heights shall be less than 24".

All excavated material generated during trail construction must be used in the 4. trail, sidecast or dispersed and blended into surrounding terrain to a height no greater than 4 inches depth.

The trail contractor shall be responsible for fine grading and providing positive 5. drainage away from all trails and trail features. No impoundments nor ponding of surface water on the trail bed shall be allowed

#### **EROSION CONTROL**

a. Inspection logs must be kept in accordance with DEC and County permit requirements.

b. Install erosion control BMPs prior to any land disturbance.

Clearing and grading to be phased to the maximum extent practical to prevent c. exposed inactive areas from becoming a source of erosion. Construction activities must avoid or minimize excavation and creation of bare ground from October 1 through May 31 each year.

Construction activities must avoid or minimize excavation and bare ground d. activities during wet weather.

Preserve existing vegetation when practical. Run-off to be managed by e. existing forest vegetation.

f Temporarily stabilize soils and stockpiles at the end of the shift before holidays and weekends, if needed. The Contractor is responsible for ensuring that soils are stable during rain events at all time of the year.

No sediment is allowed to leave the site. Significant sediment that has left the g. construction site must be remediated within 24 hours. Investigate the cause of the sediment release and implement steps to prevent a reoccurrence of the discharge within the same 24 hours.

h. Sediment must not be intentionally washed into storm sewers, drainage ways, or water bodies.

Sediment fence: Remove traffed sediment before it reaches one third of the above ground fence height and before fence removal.

The contractor must properly manage hazardous wastes, used oils, contaminated soils, concrete waste, sanitary waste, liquid waste, or other toxic substances discovered or generated during construction.

No disturbance is permitted beyond the construction limits k. established in these plans.

Do not remove temporary sediment control practices until Ι. permanent vegetation or other cover of exposed areas is established. Once construction is complete and the site is stabilized, all temporary erosion controls must be removed and disposed of properly.

The ESC measures shown on this plan are the minimum m. requirements for anticipated site conditions. During the construction period, these measures shall be upgraded as needed to maintain compliance with all regulations.

#### CONSTRUCTION LIMITS

a. The contractor is limited to a linear construction corridor. Contractor shall coordinate construction access and staging with owner's representative prior to mobilization. Do not stage equipment in sensitive areas.

The construction limits along the trail corridor shall not exceed 24" b. beyond the edge of new trails including space required backslopes. Construction shall not disturb beyond the minimum footprint required to install the work.

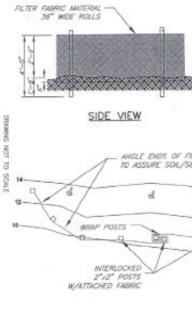
Contractor to minimize any unnecessary construction activity in c. stream and buffer areas. Contractor shall only enter these areas if shown in the design or with permission from the owner or owner's representative.

Limits of disturbance beyond what is approved will require written d. permission from Metro.

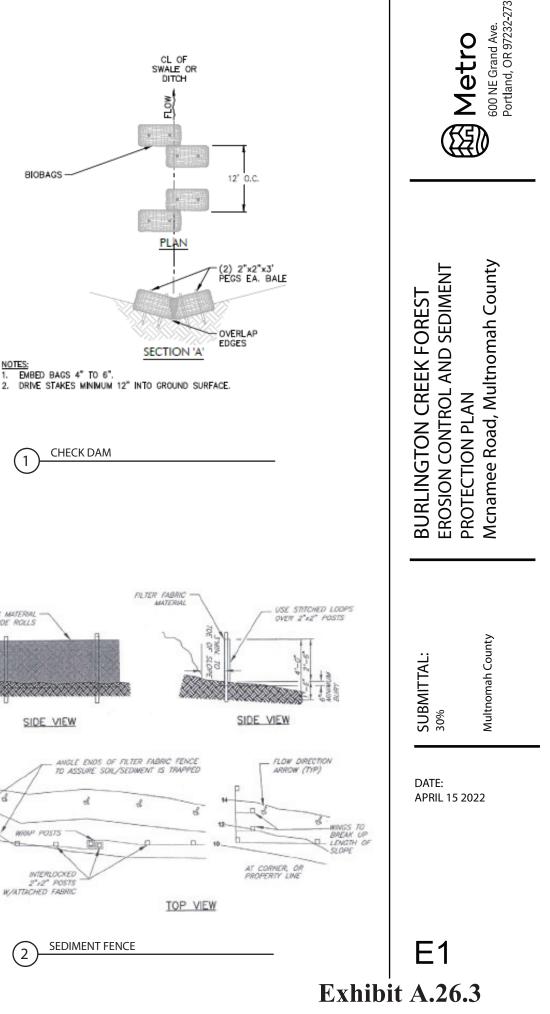
NOTES: 1. EMBED BAGS 4" TO 6".

BIOBAGS

CHECK DAM



SEDIMENT FENCE 2



**EXHIBIT 3** 

