Historic Columbia River Highway State Trail
Segments E and F
K20677
Wetland and Waters Delineation Report
Hood River, Oregon

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Introduction

The Western Federal Lands Highway Division (WFLHD), in cooperation with David Evans and Associates (DEA), WSP and ODOT are designing Segments E-F of the Historic Columbia River Highway (HCRH) State Trail. This trail connects portions of the HCRH to create a trail system that extends from Troutdale to The Dalles. Segments E-F start at Viento State Park and end with the tunnel under I-84 east of Mitchell Point at the end of Mitchell Point Drive. Segment E extends from Viento State Park to the Mitchell Point off ramp (Appendix A Figure 1). Segment F extends from the Mitchell Point off ramp to the tunnel under I-84, 1-mile east of Mitchell Point.

Wetlands and streams within 200 feet of the trail corridor of Segments E and F were identified and delineated to minimize impacts during the design process and provide background information to obtain any necessary USACE and DSL permits or the Hood River County National Scenic Ordinance permits. This project is within the Columbia River Gorge National Scenic Area (CRGNSA). The CGNSA regulations require buffers up to 200 feet around wetlands and streams. Therefore, this delineation is necessary to identify and map those features and determine the buffer widths. The study area extended north to I-84 and south of the trail 200 feet to include any buffers that may cross the trail. Buffers are not considered to extend beyond roadways such as I-84 or the HCRH. The area of potential impact (API) reflects the clearing limits of the project plus five feet on each side.

A) Landscape Setting and Land Use:

The HCRH Trail Segments E and F are located within the Columbia River Gorge National Scenic Area; the south side of the Columbia River is a transportation corridor with railways and I-84 running its length. Outside of ODOT right-of-way, the route is mostly Oregon State Park and Recreation property. Typically, cliffs, talus slopes and steep slopes drop down to a narrow terrace, sometimes manmade along the southern shore of the Columbia River. Much of the hillside south of I-84 is forested public land.

B) Site Alterations:

Historic site alterations include construction of the railroad, the HCRH and I-84. The area has been logged; flat terraces have been, and in some cases, continue to be farmed. Homesteads occurred along much of the trail route from the late 1920’s to the 1950’s, but many no longer remain. The rail and roadway construction made cuts into the steep side slopes and cliffs and the excess material was used as fill for the roadway. One example is Mitchell Point, which was first tunneled for the HCRH and then cut back for the widening of I-84. The resulting rock was used for road base. Quarries for road base were common in the Gorge. In the project vicinity, there is an abandoned quarry on the east side of Mitchell Point.

C) Precipitation Data Analysis:

Precipitation data was gathered from the National Weather Service Forecast Office – Troutdale Oregon web site, using the Daily Climate Report weather information for Troutdale, OR. The rainfall year to date was above normal in January but below normal in June and July. (Table 1). That was primarily from high rainfall in October and November, followed by low spring rainfall. Seasonal effects on hydrologic indicators were considered during the delineation. The WETS table for Troutdale indicated that the growing season extends from February 7 to December 22.
### Table 1: Precipitation Data

<table>
<thead>
<tr>
<th>Field Dates</th>
<th>Observed Rainfall on Field Date (in.)</th>
<th>Observed Rainfall Two Weeks Prior to Field Date (in.)</th>
<th>% Normal Rainfall for the Water Year to Date</th>
<th>% Normal Precipitation for 3 Months Prior to the Field Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 17, 2018</td>
<td>0.59</td>
<td>1.82</td>
<td>106%</td>
<td>115%</td>
</tr>
<tr>
<td>June 29, 2018</td>
<td>0</td>
<td>0.51</td>
<td>70%</td>
<td>69%</td>
</tr>
<tr>
<td>July 10, 2018</td>
<td>0</td>
<td>0</td>
<td>70%</td>
<td>69%</td>
</tr>
<tr>
<td>February 4, 2019</td>
<td>0.05*</td>
<td>0.72</td>
<td>62%</td>
<td>53%</td>
</tr>
</tbody>
</table>

*Snowing on sampling date

**D) Methods:**

Environmental consultants Mason Bruce and Girard (MBG), prepared a reconnaissance level analysis of the resources along the proposed trail identifying potential wetland areas. These areas were examined and the whole trail route was walked and examined for wetlands within 200 feet of the trail. Wetlands and streams were labeled using the MBG reports numbers, if a feature was added it was labeled with a letter, rather than the number from the MBG report.

The routine methodology was used in determining the presence of wetlands and delineating wetland boundaries as described in the *USACE Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Western Mountains, Valleys, and Coast Regional Supplement to USACE Manual* (ACOE 2010).

Prior to on-site investigation, the NRCS Soil Mapping data base was reviewed for soil types in the project area (Appendix A, Figure 4). The NWI maps for the site were also reviewed (Appendix A, Figure 3). Research was conducted on whether other delineations had been conducted, or if the project area was included in any Local Wetland Inventory. The API was reviewed for evidence of areas that would meet the three wetland field criteria.

Paired plots, and sometimes a row of three, were located close to the wetland boundary to determine key characteristics that differentiated the upland from the wetland. Scattered upland plots documented potential wetland sites that did not meet all three criteria.

Plant communities were evaluated in three foot by three foot square plots for all vegetation classes. These small plots are useful for finding the small details that separate the upland plant community from the wetland plant community and allow for a more accurate delineation. Larger plots are useful for effectively sampling the diversity of trees, but the goal for delineating wetlands is not to characterize the overstory plant community but to find the wetland boundary within a few feet.

Potentially regulated waterways were also identified and flow duration and connections to regulated waters were reviewed during the site investigation. The Ordinary High Water line for each waterway was flagged for survey with blue and white flagging. Wetland boundaries were flagged with pink flagging.

Preliminary Jurisdictional Determinations for the USACE were based on guidance in *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States*. Preliminary Jurisdictional determinations for the DSL were made based on Oregon Administrative Rules (OAR) 141-085-0515.

**E) Wetlands and Waters:**

ODOT identified eight streams and four wetlands within the project site (Appendix A, Figure 2).
Eight streams were identified. Six streams are perennial and two are ephemeral (Table 2). Viento and Perham Creeks are the two largest perennial streams. The ephemeral streams are unnamed. Viento and Perham Creeks are used by salmon and the culverts under I-84 are fish passable. Viento and Perham Creeks are relatively steep and fast moving with a primarily cobbled bed. Ordinary High Water Mark (OHWM) was determined primarily by the presence of upland vegetation (*Polystichium munitum* and *Toxicodendron diversilobum*) and the organic soils in the upland with plants (*Petasites frigidus*) tolerant of wet conditions and cobbles and gravel in the stream. Viento is about 15-25 feet wide in the vicinity of the project site. Perham Creek is slightly larger at 20-30 feet wide.

<table>
<thead>
<tr>
<th>Stream #</th>
<th>Name</th>
<th>Perennial-Ephemeral</th>
<th>Lat-Long</th>
<th>Preliminary Jurisdictional Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DSL</td>
</tr>
<tr>
<td>10</td>
<td>Viento</td>
<td>Perennial</td>
<td>45.69636 -121.66812</td>
<td>Jurisdictional^{1}</td>
</tr>
<tr>
<td>A</td>
<td>N/A</td>
<td>Ephemeral</td>
<td>45.69578 -121.65928</td>
<td>Jurisdictional^{1}</td>
</tr>
<tr>
<td>12</td>
<td>Perham</td>
<td>Perennial</td>
<td>45.69893 -121.63701</td>
<td>Jurisdictional^{1}</td>
</tr>
<tr>
<td>14</td>
<td>N/A</td>
<td>Ephemeral</td>
<td>45.69919 -121.63018</td>
<td>Jurisdictional^{1}</td>
</tr>
<tr>
<td>15</td>
<td>Mitchell</td>
<td>Perennial</td>
<td>45.70041 -121.62608</td>
<td>Jurisdictional^{1}</td>
</tr>
<tr>
<td>16</td>
<td>N/A</td>
<td>Perennial</td>
<td>45.702944 -121.619376</td>
<td>Jurisdictional^{1}</td>
</tr>
<tr>
<td>B</td>
<td>N/A</td>
<td>Perennial</td>
<td>45.70282 -121.610612</td>
<td>Jurisdictional^{1}</td>
</tr>
<tr>
<td>C</td>
<td>N/A</td>
<td>Perennial</td>
<td>45.703002 -121.608086</td>
<td>Jurisdictional^{1}</td>
</tr>
</tbody>
</table>

1. OAR 141-85-515 (3) Waters including rivers intermittent and perennial streams, lakes and ponds.
2. OAR 141-085-515 8) Jurisdictional Ditches. Except as provided under section (9) and (10) below, ditches are jurisdictional if they are: (a) Created in wetlands, estuaries, tidal rivers or other waters of this state; or (b) Created from upland and meet the following conditions: (A) Contain food and game fish; and (B) Have a free and open connection to waters of this state.
3. The USACE does not take jurisdiction over Swales or Ditches created wholly in uplands and that do not carry relatively permanent flow (i.e. carry just storm water) per CWA Jurisdiction following the US Supreme Court Decision in Rapanos vs US and Carabell vs US. (EPA 2008).
4. The USACE does take jurisdiction over relatively permanent waters
5. The USACE does take jurisdiction over “not relatively permanent waters” if the tributaries and adjacent wetlands have a significant nexus to a traditional navigable water. Those labeled as jurisdictional meet the nexus those labeled as non-jurisdictional do not.
Mitchell Creek is identified and described in this report as perennial. The stream is about 6-8 feet wide. It has deeply incised areas. The substrate varies from silt to gravel. There is no culvert or crossing where the HCRH originally crossed the stream. The stream is used by fish (rainbow trout) above the I-84 culvert.

Streams 14 and A are very steep and ephemeral. The streams are less than 3 feet wide. Channel beds range from silty to rocky. Stream A starts on a very steep slope within the study area and enters a culvert that extends off site. Stream A was dry during our site visit on January 17, 2018. Stream A lacked flow during some site visits and Stream 14 had very low flows in early summer, some both were determined to be ephemeral.

Stream 16 is perennial, incised with steep banks, and culverted beneath the road to the Mitchell Point parking lot. Stream B is perennial and is not culverted, instead traversing over HCRH roadbed. This stream ends and infiltrates into the ground within the study area near the roadbed and is not connected to a traditional navigable waters by surface water. Stream B is not likely to be regulated by the USACE because it is not connected to the Columbia River, the nearest traditional navigable waterway. DSL likely regulates it since it is perennial. Stream C is perennial and enters a culvert that goes beneath paved HCRH now used for residential access. Stream C drains to the Columbia River and is likely regulated by the USACE and DSL.

The OHWM of these streams were generally easily identifiable by the presence of scour, change from wetland to upland plants, organic surface soil layers and drift lines. Most were steeply banked except for lower Perham Creek.

All the streams identified in Table 2 are regulated by the Hood River County National Scenic Area Ordinance.

**Wetlands**

Wetland 5 is a small (0.01 acre) depressional wetland that has formed behind the road prism for I-84 (Table 3, Photo 1). A perched culvert drains the wetland, if needed. The vegetation is dominated by second growth alder (Alnus rubra) and lady ferns (Athyrium filix-femina). The wetland collects water seasonally in a shallow pond. The wetland is relatively flat but the topography slopes steeply at the wetland edge. Swordfern, herb Robert (Geranium robertianum), and big leaf maple (Acer macrophyllum) are common in the upland areas. The upland soils also have a high rock or gravel component at about 12 inches. Wetland A is likely to be regulated by DSL as a wetland. It is unlikely to be regulated by the USACE because it is isolated with water rarely flowing out of the culvert to provide a connection to other waters.

Wetland 11 is a small (0.07 acre) slope headwater wetland that formed adjacent to Stream B (Table 3). The vegetation is dominated by an Oregon ash (Fraxinus latifolia) and black cottonwood (Populus balsamifera) overstory with soft rush (Juncus effusus) and slough sedge (Carex obnupta) in the understory. The upland vegetation is largely dominated by grasses including red fescue (Festuca rubra) as well as curly dock (Rumex crispus). Himalayan blackberry and poison oak were also common. Gravel is a significant component of both wetland and upland soils and rock was found below about 3 inches of upland soil due to the presence of the old roadbed in this area. The hydrology of this wetland was characterized by soil saturation to the surface. Wetland 11 is unlikely to be regulated as a wetland by both DSL and USACE. The wetland appears to have formed in an old gravel quarry and therefore was created in upland and unlikely to be regulated by DSL. The wetland in combination with Stream B are isolated and unlikely to be regulated by the USACE.

Wetland A is a small (0.01 acre) slope headwater wetland that has formed adjacent to Stream C behind a culvert. The wetland area is relatively flat with water forming a shallow pool near the culvert that runs beneath the road. The overstory is dominated by Oregon ash with field horsetail (Equisetum arvense) and Oregon grape (Mahonia repens) present in the understory. The upland vegetation is dominated primarily by bigleaf maple and poison oak (Toxicodendron diversilobum) with snowberry also present. The wetland soil was characterized by redoximorphic features. The upland soil does not have these redox features. Wetland A is likely regulated as a wetland by both DSL and USACE.
Wetland B is a small (0.25 acre) depressional wetland. The wetland has formed in the bottom of a large steep sided depression, likely created from excavation of gravel or sand. It is dominated by black cottonwood, Oregon ash and scouring rush (*Equisetum hyemale*). The upland is characterized by Himalayan blackberry (*Rubus armeniacus*), poison oak, and Oregon white oak (*Quercus garryana*). Soils are a sandy loam and the ones within the wetland have redoximorphic features. This wetland is unlikely to be regulated by the USACE because it is isolated. It is unlikely to be regulated by DSL because it was created in a well-drained quarry. Evidence of the quarry is provided by historic advertising, aerial photographs and assessor’s maps (Appendix D).

All the wetlands identified in Table 3 are regulated by the Hood River County National Scenic Area Ordinance.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Cowardin Class¹</th>
<th>HGM Class²</th>
<th>Lat-Long</th>
<th>Size in API (ac)</th>
<th>Sample Plots</th>
<th>Preliminary Jurisdictional Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland 5</td>
<td>PFO</td>
<td>Depressional outlet</td>
<td>45.69727-121.66481</td>
<td>0.01</td>
<td>SP1-2</td>
<td>Jurisdictional</td>
</tr>
<tr>
<td>Wetland 11</td>
<td>PFO</td>
<td>Slope Headwater</td>
<td>45.70273-121.610713</td>
<td>0.068</td>
<td>SP5-6</td>
<td>Non-Jurisdictional</td>
</tr>
<tr>
<td>Wetland A</td>
<td>PFO</td>
<td>Slope Headwater</td>
<td>45.70307-121.608308</td>
<td>0.0676</td>
<td>SP 9-10</td>
<td>Jurisdictional</td>
</tr>
<tr>
<td>Wetland B</td>
<td>PFO</td>
<td>Depressional closed</td>
<td>45.70361-121.61165</td>
<td>0.002</td>
<td>SP11-13</td>
<td>Non-Jurisdictional</td>
</tr>
</tbody>
</table>

¹ All features meeting wetland criteria were identified and mapped. Those features that ODOT constructed for the purpose of conveying stormwater within the interstate system are denoted as stormwater features.

² USACE regulates wetlands if the wetland (1) directly abuts (e.g., the wetland is not separated from the tributary by uplands, a berm, dike, or similar feature) a relatively permanent water body (RPW), or (2) if a water body, in combination with all wetlands adjacent to that water body, has a significant nexus with traditional navigable waters (TNWs). If marked No, the wetland does not directly abut a RPW nor forms a significant nexus to a TNW.

³ Wetlands are regulated by DSL as described in OAR 141-85-0151. If marked No, the wetland is not considered jurisdictional based on the following:

⁴ wetland is artificially created in uplands (as part of the interstate system) and less than one acre in size per OAR 141-85-0151(6)

⁵ wetland is artificially created in uplands (as part of the interstate system) for the purpose of settling sediment and stormwater detention and/or treatment per OAR 141-85-0151(7).

⁶ Connected feature is defined as an adjacent, up or downstream wetland or waterbody that is directly connected to the wetland feature.

**Ditches**

There are many ditches along I-84 and the HCRH that receive water from stormwater runoff seasonally from the roadways. These ditches are less than 10 feet wide, do not provide fish habitat and are not contiguous to wetlands.
F) Deviation from LWI or NWI:

The NWI and LWI maps identified only Perham and Viento Creeks within the project boundaries (Appendix A, Figure 3).

G) Mapping Method:

The on-site wetland boundaries and all plots were flagged in the field by ODOT wetland professionals using a GPS unit and the most appropriate methods to capture the wetland boundaries and locations of wetland data plots accurately. The mapping accuracy of the wetland boundaries is less than one foot. The upper, most southern portion of Mitchell Creek was not located using GPS because of the steep terrain and dense tree cover. This portion of the stream is within the study area but outside the area of potential impact. The boundary was approximated from the MBG GPS data. For streams under three feet wide, only the centerlines were surveyed. Wider streams had the OHWM surveyed.

H) Additional Information:

MBG identified five additional wetlands areas (Table 4). These features were part of the road system or lacked hydric soils and did not meet the wetland criteria. Though some of these areas met the wetland criteria they were not considered jurisdictional for a variety of reasons. WL6 was water that collected in the old HCRH, just off the old HCRH roadway (Data Sheet 3, photo 2 and 3) the site did not meet the wetland criteria. The other three MBG sites identified as possible wetlands were roadway ditches. Photos of some of these areas are included in Appendix B. MBG identified one additional potential wetland (10) area that was described as a vernal pool with large areas of gravel and no vegetation. However, ODOT staff found this area did not meet the wetland criteria (Data Sheet 4). This site formed in an old quarry bottom and lacked hydric soils. Photos of this area are included in Appendix B. Also Wetland 11 was smaller than MBG mapped due to lack of hydric soils in quarry and along old roadways.

ODOT identified one stream (#11) that upon closer examination over the seasons was determined not to meet the stream criteria. It was a short 100-200 foot length with the appearance of a bed a few inches deep and about a foot wide. This area had no stream channel up or downstream from the section. It was observed during several wet periods in winter and spring and lacked water and light organic matter was unmoved. Because of the lack of water and connectivity this area was not considered a stream.

The Hood River County National Scenic Area Ordinance does not regulate ditches that are part of the roadway and that carry only road runoff.

I) Results and Conclusions:

ODOT identified eight streams and four wetlands within the project site (Appendix A, Figure 2). All the streams appear to be regulated by DSL. Preliminary jurisdictional determinations made by ODOT staff identified two streams that are not likely regulated by the USACE. Preliminary jurisdictional determinations by ODOT staff identified that some of the wetlands will not be regulated by DSL and the USACE.

J) 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 Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.
1. OAR 141-85-515 (3) Waters including rivers intermittent and perennial streams, lakes and ponds.
2. OAR 141-085-515 8) Jurisdictional Ditches. Except as provided under section (9) and (10) below, ditches are jurisdictional if they are: (a) Created in wetlands, estuaries, tidal rivers or other waters of this state; or (b) Created from upland and meet the following conditions: (A) Contain food and game fish; and (B) Have a free and open connection to waters of this state. A “free and open connection” means a connection by any means, including but not limited to culverts, to or between natural waterways and other navigable and non-navigable bodies of water that allows the interchange of surface flow at bankfull stage or ordinary high water, or at or below mean higher high tide between tidal waterways.
3. The USACE does not take jurisdiction over Swales or Ditches created wholly in uplands and that do not carry relatively permanent flow (i.e. carry just storm water) per CWA Jurisdiction following the US Supreme Court Decision in Rapanos vs US and Carabell vs US. (EPA 2008).
4. The USACE does take jurisdiction over relatively permanent waters
5. The USACE does take jurisdiction over “not relatively permanent waters” if the tributaries and adjacent wetlands have a significant nexus to a traditional navigable water. Those labeled as jurisdictional meet the nexus those labeled as non-jurisdictional do not.

### Table 4. Preliminary Non-Jurisdictional M,B & G Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>Size (ac)</th>
<th>Preliminary Jurisdiction Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>WL 6</td>
<td>Artificially create wetland in old rutted roadway (HCRH) that collects water</td>
<td>0.02</td>
<td>Non Jurisdictional&lt;sup&gt;3&lt;/sup&gt; Non Jurisdictional&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>WL7</td>
<td>Roadside Ditch</td>
<td>0.02</td>
<td>Non Jurisdictional&lt;sup&gt;2&lt;/sup&gt; Non Jurisdictional&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>WL8</td>
<td>Roadside Ditch</td>
<td>0.007</td>
<td>Non Jurisdictional&lt;sup&gt;2&lt;/sup&gt; Non Jurisdictional&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>WL9</td>
<td>Roadside Ditch</td>
<td>0.003</td>
<td>Non Jurisdictional&lt;sup&gt;2&lt;/sup&gt; Non Jurisdictional&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>WL10</td>
<td>Seasonal pool in quarry floor</td>
<td></td>
<td>Lacked Hydric Soils – Not a wetland</td>
</tr>
</tbody>
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---

K) List of Preparers

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ken Sargent</td>
<td>Wetland Specialist, ODOT Region 1</td>
<td>Lead Author</td>
</tr>
<tr>
<td>Ben White</td>
<td>Biologist, ODOT Region 1</td>
<td>Technical Reviewer</td>
</tr>
<tr>
<td>Ron Francis</td>
<td>Wetland Specialist, ODOT Region 2</td>
<td>Technical Reviewer</td>
</tr>
<tr>
<td>Magnus Bernhardt</td>
<td>REC, Region 1</td>
<td>Technical Reviewer</td>
</tr>
</tbody>
</table>
Figure 1. Project Vicinity
Segment E
West Half

Viento Creek

Wetland 5

Stream A

Legend

- API Segment E
- Stream
- Culvert
- Study Area
- Wetland
- Sample Points
- Photo Pt

Accuracy within API is within 1 meter
OREGON DEPARTMENT OF TRANSPORTATION
HCRH Trail Segments EF
Figure 2C
Wetlands and Waterways

Legend

- API Segment F
- Stream
- Culvert
- Study Area
- Wetland
- Sample Points
- Photo Pt

Accuracy within API is within 1 meter
Figure 3A

HCRH Trail Segment E and F

Legend
- API Segment E
- Study Area
- Wetland Inventory

Viento Creek
Perham Creek

Exit to Viento State Park
Exit to Mitchell Point

Segment E
Segment F

Exit to Mitchell Point

Legend
- API Segment F
- Study Area
- Wetland Inventory

HCRH Trail Segment E and F
Figure 3B
National and Local Wetland Inventory (NWI an LWI)
No Soil Survey for this Area

Wyeth very gravelly loam 45-75% clope

Legend
- API Segment E
- Study Area
Figure 4B
Soil Survey

HCRH Trail Segment E and F

Legend
- API_Segment_F
- Study Area

Wyeth very gravelly loam 45-75% slope

Wind River fine sandy loam, 0-8% slopes

Exit to Mitchell Point

Tunnel under I-84

I-84

29F

29E

26C

1E

16D

16E

16F

16F
Figure 3
National and Local Wetland Inventory (NWI an LWI)

Legend
- Taxlot Hood River County
- API Segment E
- Study Area
Figure 5B
HCRH Trail Segment E and F

Legend
- API Segment F
- Study Area
- Taxlot Hood River County
**Photo 1.** Wetland 5 looking east from West edge from HCRH. Jan 17, 2018.

**Photo 2.** WL 6 (MB&G) ponding in old HCRH roadway-not included as wetland. January 17, 2018.

**Photo 3.** Sample plot 3. Located in or near WL 6 (MB&G). January 17, 2018.

Photo 5. Viento Creek 2/16/2018.

Photo 8. WL-9 (MB&G) classified as a non-jurisdictional ditch. February 16, 2018.


Appendix C

Datasheets
WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: HCRH State Trail E and F  
City/County: Hood River  
Sampling Date: 1/17/2018

Applicant/Owner: ODOT Region 1  
State: OR

Sampling Point: 1

Investigator(s): Ken Sargent  
Section, Township, Range: 35, 3N, 9E  
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):  
Subregion (LRR):  
Lat: 45.69727  
Long: -121.66485  
Datum:  

Soil Map Unit Name: No Data Available  
NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  
No (If no, explain in Remarks.)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are “Normal Circumstances” present? Yes  
No (If needed, explain any answers in Remarks.)

Are Vegetation, Soil, or Hydrology naturally problematic?  

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: MBG Wetland 5

VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 3'x3' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Total Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alnus rubra</td>
<td>100</td>
<td>D</td>
<td>FAC</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Sapling/Shrub Stratum (Plot size: )

<table>
<thead>
<tr>
<th>Herb Stratum (Plot size: )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Total Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Athyrium filix-femina</td>
<td>100</td>
<td>D</td>
<td>FAC</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
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<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Woody Vine Stratum (Plot size: )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Total Cover</th>
</tr>
</thead>
</table>

% Bare Ground in Herb Stratum

Remarks:
SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Redox Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12</td>
<td>10YR 2/1</td>
<td>Muck</td>
</tr>
<tr>
<td>12-16</td>
<td>10YR 2/1</td>
<td>Silt loam</td>
</tr>
</tbody>
</table>

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

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

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

Restrictive Layer (if present): Type: 

Hydric Soil Present? Yes x No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes</th>
<th>No</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>x</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>x</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>(includes capillary fringe) Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wetland Hydrology Present? Yes x No

Remarks:

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

**Project/Site:** HCRH State Trail E and F  
**City/County:** Hood River  
**Sampling Date:** 1/17/2018  
**Applicant/Owner:** ODOT Region 1  
**State:** OR  
**Sampling Point:** 2

**Investigator(s):** Ken Sargent  
**Section, Township, Range:** 35, 3N, 9E  
**Sampling Point:** 2

**Subregion (LRR):**  
**Local relief (concave, convex, none):**  
**Slope (%):** 10

**Soil Map Unit Name:** No Data Available  
**NWI classification:** N/A

**Are climatic / hydrologic conditions on the site typical for this time of year?** Yes [x] No [ ]  
(If no, explain in Remarks.)

**Are Vegetation, Soil, or Hydrology significantly disturbed?**  
Are "Normal Circumstances" present? Yes [x] No [ ]  
(If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

- **Hydrophytic Vegetation Present?** Yes [x] No [ ]  
- **Hydric Soil Present?** Yes [x] No [ ]  
- **Is the Sampled Area within a Wetland?** Yes [x] No [ ]

**Remarks:** Adjacent to MBG Wetland 5

**VEGETATION – Use scientific names of plants.**

**Tree Stratum** (Plot size: 3'x3')

1. **Alnus rubra**  
   Absolute % Cover: 100  
   Dominant Species?: D  
   Indicator Status: FAC

2.  
3.  
4.  

Total Cover

**Sapling/Shrub Stratum** (Plot size: )

1.  
2.  
3.  
4.  
5.  

Total Cover

**Herb Stratum** (Plot size: )

1. **Polystichum munitum**  
   Absolute % Cover: 40  
   Dominant Species?: D  
   Indicator Status: FACU

2. **Geranium robertianum**  
   Absolute % Cover: 5  
   Dominant Species?: FACU

3.  
4.  
5.  

Total Cover

**Woody Vine Stratum** (Plot size: )

1.  
2.  

Total Cover

**% Bare Ground in Herb Stratum**

**Dominance Test worksheet:**

- Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
- Total Number of Dominant Species Across All Strata: 2 (B)
- Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

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

**Hydrophytic Vegetation Indicators:**

1. - Rapid Test for Hydrophytic Vegetation  
2. - Dominance Test is >50%  
3. - Prevalence Index is ≤3.01  
4. - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)  
5. - Wetland Non-Vascular Plants1  
6. - Problematic Hydrophytic Vegetation1 (Explain)

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

**Hydrophytic Vegetation Present?** Yes [x] No [ ]
### SOIL Sampling Point: 2

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-7</td>
<td>10YR 3/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Silt loam</td>
<td></td>
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<tr>
<td>7+</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Gravel and rock</td>
<td></td>
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</tr>
</tbody>
</table>

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

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

**Indicators for Problematic Hydric Soils³:**

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

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

### Restrictive Layer (if present):

<table>
<thead>
<tr>
<th>Type:</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hydric Soil Present?** Yes ☑ No ☒

**Remarks:**

---

### HYDROLOGY

**Wetland Hydrology Indicators:**

- Primary Indicators (minimum of one required; check all that apply)
  - Surface Water (A1)
  - High Water Table (A2)
  - Saturation (A3)
  - Water Marks (B1)
  - Sediment Deposits (B2)
  - Drift Deposits (B3)
  - Algal Mat or Crust (B4)
  - Iron Deposits (B5)
  - Surface Soil Cracks (B6)
  - Inundation Visible on Aerial Imagery (B7)
  - Sparsely Vegetated Concave Surface (B8)

- Secondary Indicators (2 or more required)
  - Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
  - Salt Crust (B11)
  - Aquatic Invertebrates (B13)
  - Hydrogen Sulfide Odor (C1)
  - Oxidized Rhizospheres along Living Roots (C3)
  - Presence of Reduced Iron (C4)
  - Recent Iron Reduction in Tilled Soils (C6)
  - Stunted or Stressed Plants (D1) (LRR A)
  - Geomorphic Position (D2)
  - Shallow Aquitard (D3)
  - FAC-Neutral Test (D5)
  - Raised Ant Mounds (D6) (LRR A)
  - Frost-Heave Hummocks (D7)

**Field Observations:**

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes ☑ No ☒</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes ☑ No ☒</td>
<td>Depth (inches):</td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes ☑ No ☒</td>
<td>Depth (inches):</td>
</tr>
</tbody>
</table>

**Wetland Hydrology Present?** Yes ☒ No ☑

**Remarks:** Dry in pit

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

Project/Site: HCRH State Trail E and F  
City/County: Hood River  
Sampling Date: 1/17/2018

Applicant/Owner: ODOT Region 1  
State: OR

Investigator(s): Ken Sargent  
Section, Township, Range: 35, 3N, 9E

Subregion (LRR):  
Lat: 45.69701  
Long: -121.66448  
Datum: N/A

Soil Map Unit Name: No Data Available

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  
Are Vegetation, Soil, or Hydrology significantly disturbed?  
Are "Normal Circumstances" present? Yes  
Are Vegetation, Soil, or Hydrology naturally problematic?  
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes  
Hydric Soil Present? Yes  
Wetland Hydrology Present? Yes  
Remarks: Less disturbed area adjacent to old roadway. Near Wetland 5.

**VEGETATION – Use scientific names of plants.**

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Plot size</th>
<th>Absolute Cover</th>
<th>Dominant Species</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Stratum</td>
<td>3' x 3'</td>
<td>100</td>
<td>D</td>
<td>FACU</td>
</tr>
<tr>
<td>Sapling/Shrub Stratum</td>
<td></td>
<td>20</td>
<td>D</td>
<td>FACU</td>
</tr>
<tr>
<td>Herb Stratum</td>
<td></td>
<td>20</td>
<td>D</td>
<td>FACU</td>
</tr>
<tr>
<td>Woody Vine Stratum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3  
Total Number of Dominant Species Across All Strata: 6  
Percent of Dominant Species That Are OBL, FACW, or FAC: 50

**Prevalence Index worksheet:**

OBL species x 1 = 3  
FACW species x 2 =  
FAC species 50 x 3 = 150  
FACU species 140 x 4 = 520  
UPL species x 5 =  
Column Totals: 190 (A) 670 (B)

Prevalence Index = B/A = 3.52

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0  
4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)  
5 - Wetland Non-Vascular Plants1  
6 - Problematic Hydrophytic Vegetation1 (Explain)

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

**Hydrophytic Vegetation Present?** Yes  
Remarks:
### SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>10YR 3/2</td>
<td>98</td>
<td>10YR 3/3</td>
<td>2</td>
<td>C</td>
<td>M</td>
<td>Silt loam</td>
<td>Gravel and rock</td>
</tr>
<tr>
<td>10+</td>
<td></td>
<td></td>
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</tbody>
</table>

1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

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

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

**Restrictive Layer (if present):**

<table>
<thead>
<tr>
<th>Type</th>
<th>Depth (inches)</th>
<th>Hydric Soil Present?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes [ ] No [x]</td>
</tr>
</tbody>
</table>

Remarks: Tough to get a good soil sample because of all the quarry spalls- had to use soil probe.

### HYDROLOGY

**Wetland Hydrology Indicators:**

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1)
- Oxidized Rhizospheres along Living Roots (C3)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Iron Deposits (B5)
- Stunted or Stressed Plants (D1)

**Secondary Indicators** (2 or more required)

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

**Field Observations:**

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes [ ] No [x]</th>
<th>Depth (inches):</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes [x] No [ ]</td>
<td>Depth (inches):</td>
<td>7</td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes [ ] No [x]</td>
<td>Depth (inches):</td>
<td>0</td>
</tr>
</tbody>
</table>

**Wetland Hydrology Present?**

- Yes [x] No [ ]

Remarks: Water in pit could be coming from rainfall.
**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

**Project/Site:** HCRH State Trail E and F  
**City/County:** Hood River  
**Sampling Date:** 6/29/18

**Applicant/Owner:** ODOT  
**State:** OR

**Investigator(s):** K. Sargent / E. Huston  
**Section, Township, Range:** 35, 3N, 10E  
**Local relief (concave, convex, none):** none  
**Slope (%):** 0

**Subregion (LRR):** A  
**Lat:** 45.703277  
**Long:** -121.612279

**Soil Map Unit Name:** Wyeth very gravelly loam  
**NWI classification:**

**Are climatic / hydrologic conditions on the site typical for this time of year?**  
Yes [X]  
No [ ]

(If no, explain in Remarks.)

**Are Vegetation, Soil, or Hydrology significantly disturbed?**  
Yes [ ]  
No [X]

(If needed, explain any answers in Remarks.)

**Are "Normal Circumstances" present?**  
Yes [X]  
No [ ]

**Are Vegetation, Soil, or Hydrology naturally problematic?**  
Yes [ ]  
No [X]

(If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: MBG Wetland 6 – In old quarry floor

### VEGETATION – Use scientific names of plants.

**Tree Stratum** (Plot size: 3’x3’)

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
</table>

= Total Cover

**Sapling/Shrub Stratum** (Plot size: 3’x3’)

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>= Total Cover</th>
</tr>
</thead>
</table>

**Herb Stratum** (Plot size: 3’x3’)

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
<th>11.</th>
<th>= Total Cover</th>
</tr>
</thead>
</table>

**Woody Vine Stratum** (Plot size: )

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>= Total Cover</th>
</tr>
</thead>
</table>

**% Bare Ground in Herb Stratum** 100

**Dominance Test worksheet:**

- Number of Dominant Species That Are OBL, FACW, or FAC: (A)
- Total Number of Dominant Species Across All Strata: (B)
- Percent of Dominant Species That Are OBL, FAC, or FAC: (A/B)

**Prevalence Index worksheet:**

- Total % Cover of: Multiply by:
  - OBL species x 1 =
  - FACW species x 2 =
  - FAC species x 3 =
  - FACU species x 4 =
  - UPL species x 5 =

- Column Totals: (A) (B)

Prevalence Index = B/A =

**Hydrophytic Vegetation Indicators:**

1. Rapid Test for Hydrophytic Vegetation  
2. Dominance Test is >50%  
3. Prevalence Index is ≤3.01  
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)  
5. Wetland Non-Vascular Plants¹  
6. Problematic Hydrophytic Vegetation¹ (Explain)

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

**Hydrophytic Vegetation Present?**  
Yes | No | X

Remarks: Bare Ground no vegetation
### SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Redox Features</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>10YR 2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gravely silt loam</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
</tbody>
</table>

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

#### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

#### Indicators for Problematic Hydric Soils³:
- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

#### Restrictive Layer (if present):  
- Type: [ ]
- Depth (inches): [ ]

#### Hydric Soil Present?  
- Yes [ ]  
- No [ ]  
- X [ ]

#### Remarks:  
- Rock below 3 inches

### HYDROLOGY

**Wetland Hydrology Indicators:**

#### Primary Indicators (minimum of one required; check all that apply)
- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

#### Secondary Indicators (2 or more required)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Soils (C6)
- Recent Iron Reduction in Tilled Soils (C6)
- Freshwater Fish (C7)
- Stunted or Stressed Plants (D1)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

#### Field Observations:  
- Surface Water Present?  
  - Yes [ ]  
  - No [ ]  
  - X [ ]
- Water Table Present?  
  - Yes [ ]  
  - No [ ]  
  - X [ ]
- Saturation Present?  
  - Yes [ ]  
  - No [ ]  
  - X [ ]
  (includes capillary fringe)

#### Wetland Hydrology Present?  
- Yes [ ]  
- X [ ]  
- No [ ]

#### Field Observations:  
- Surface Water Present?  
  - Yes [ ]  
  - No [ ]  
  - X [ ]
- Water Table Present?  
  - Yes [ ]  
  - No [ ]  
  - X [ ]
- Saturation Present?  
  - Yes [ ]  
  - No [ ]  
  - X [ ]

#### Remarks:  
- Seasonal ponding in this depression.
**Project/Site:** HCRH State Trail E and F  
**City/County:** Hood River  
**Sampling Date:** 6/29/18

**Applicant/Owner:** ODOT  
**State:** OR

**Investigator(s):** K Sargent/E Huston  
**Section, Township, Range:** 35, 3N, 10E

**Landform (hillslope, terrace, etc.):**  
**Local relief (concave, convex, none):** none  
**Slope (%):** 2

**Subregion (LRR):** A  
**Lat:** 45.702716  
**Long:** -121.610675  
**Datum:**

**Soil Map Unit Name:** Wyeth very gravelly loam  
**NWI classification:**

**Are climatic / hydrologic conditions on the site typical for this time of year?** Yes  
**Are Vegetation, Soil, or Hydrology significantly disturbed?**  
**Are “Normal Circumstances” present?** Yes  
**Are Vegetation, Soil, or Hydrology naturally problematic?**  

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Is the Sampled Area within a Wetland?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Remarks:** MBG Wetland 11 -

**VEGETATION – Use scientific names of plants.**

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 3’x3’)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraxinus latifolia</td>
<td>50</td>
<td>X</td>
<td>FACW</td>
</tr>
<tr>
<td>Populus balsamifera</td>
<td>50</td>
<td>X</td>
<td>FAC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum (Plot size: 3’x3’)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubus armeniacus</td>
<td>40</td>
<td>X</td>
<td>FAC</td>
</tr>
<tr>
<td>Toxicodendron diversilobum</td>
<td>20</td>
<td>X</td>
<td>FAC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Herb Stratum (Plot size: 3’x3’)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Woody Vine Stratum (Plot size: )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**% Bare Ground in Herb Stratum**

**Remarks:**

**Dominance Test worksheet:**

<table>
<thead>
<tr>
<th>Number of Dominant Species That Are OBL, FACW, or FAC:</th>
<th>4 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Dominant Species Across All Strata:</td>
<td>4 (B)</td>
</tr>
<tr>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC:</td>
<td>100 (A/B)</td>
</tr>
</tbody>
</table>

**Prevalence Index worksheet:**

<table>
<thead>
<tr>
<th>Total % Cover of:</th>
<th>Multiply by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL species</td>
<td>x 1</td>
</tr>
<tr>
<td>FACW species</td>
<td>50 x 2</td>
</tr>
<tr>
<td>FAC species</td>
<td>110 x 3</td>
</tr>
<tr>
<td>FACU species</td>
<td>110 x 4</td>
</tr>
<tr>
<td>UPL species</td>
<td>110 x 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column Totals:</th>
<th>430 (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence Index = B/A =</td>
<td>2.69</td>
</tr>
</tbody>
</table>

**Hydrophytic Vegetation Indicators:**

1. Rapid Test for Hydrophytic Vegetation  
2. Dominance Test is >50%  
3. Prevalence Index is ≤3.01

4. Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)

5. Wetland Non-Vascular Plants1

6. Problematic Hydrophytic Vegetation1 (Explain)

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

**Hydrophytic Vegetation Present?** Yes  

**Remarks:**
### SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td></td>
<td>10YR 2/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gravely silt loam</td>
<td></td>
</tr>
<tr>
<td>2-4</td>
<td></td>
<td>10YR 3/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gravely silt loam</td>
<td></td>
</tr>
</tbody>
</table>

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

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

- Histsol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

### Restrictive Layer (if present):

- Type:  
- Depth (inches): 

### Hydric Soil Present?  Yes [ ] No [x] [ ]

Remarks:

- Rock below about 4 inches

## HYDROLOGY

### Wetland Hydrology Indicators:

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

**Secondary Indicators (2 or more required)**

- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6)
- Frost-Heave Hummocks (D7)

### Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes [ ] No [x] X [ ] Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes [ ] No [x] X [ ] Depth (inches):</td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes [ ] No [x] X [ ] Depth (inches):</td>
</tr>
</tbody>
</table>

**Wetland Hydrology Present?**  Yes [ ] No [x] [ ]

**Remarks:**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

**Project/Site:** HCRH State Trail E and F  
**City/County:** Hood River  
**Applicant/Owner:** ODOT  
**State:** OR  
**Sampling Date:** 6/29/18

**Investigator(s):** K Sargent/E Huston  
**Section, Township, Range:** 35, 3N, 10E  
**Landform (hillslope, terrace, etc.):** Local relief (concave, convex, none): concave  
**Subregion (LRR):** A  
**Lat:** 45.702728  
**Long:** -121.6107  
**Datum:**  
**Soil Map Unit Name:** Wyeth very gravelly loam  
**NWI classification:** PFO  
**Remarks:** MBG Wetland 5

**Vegetation – Use scientific names of plants.**

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Absolute % Cover</th>
<th>Dominant Species</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Stratum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. <em>Fraxinus latifolia</em></td>
<td>50</td>
<td>X</td>
<td>FACW</td>
</tr>
<tr>
<td>2. <em>Populus balsamifera</em></td>
<td>50</td>
<td>X</td>
<td>FAC</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cover</td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Sapling/Shrub Stratum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. <em>Rubus armeniacus</em></td>
<td>10</td>
<td>X</td>
<td>FAC</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
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<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cover</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Herb Stratum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. <em>Athyrium americanum</em></td>
<td>10</td>
<td></td>
<td>FAC</td>
</tr>
<tr>
<td>2. <em>Carex capitata</em></td>
<td>80</td>
<td>X</td>
<td>FACW</td>
</tr>
<tr>
<td>3. <em>Polypogon monspeliensis</em></td>
<td>5</td>
<td>X</td>
<td>FACW</td>
</tr>
<tr>
<td>4.</td>
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<td>5.</td>
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<td>6.</td>
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<td>9.</td>
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<td>10.</td>
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<td></td>
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<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cover</td>
<td></td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>Woody Vine Stratum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Bare Ground in Herb Stratum</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dominance Test worksheet:**

- Number of Dominant Species That Are OBL, FACW, or FAC: 4  
- Total Number of Dominant Species Across All Strata: 4  
- Percent of Dominant Species That Are OBL, FACW, or FAC: 100

**Prevalence Index worksheet:**

- Total % Cover of OBL species: 135  
- Multiply by: 4
- Total % Cover of FACW species: 270  
- Multiply by: 2
- Total % Cover of FACU species: 210  
- Multiply by: 2
- UPL species: 205

- Column Totals: 480
- Prevalence Index = B/A = 2.34

**Hydrophytic Vegetation Indicators:**

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

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
### SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>10YR 2/2</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Silt loam</td>
<td></td>
</tr>
<tr>
<td>3-8</td>
<td>10YR 2/1</td>
<td>90</td>
<td>10YR 3/4</td>
<td>10</td>
<td></td>
<td></td>
<td>Silt loam</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Histosol (A1)</td>
<td>Sandy Redox (S5)</td>
<td></td>
</tr>
<tr>
<td>Histic Epipedon (A2)</td>
<td>Stripped Matrix (S6)</td>
<td></td>
</tr>
<tr>
<td>Black Histic (A3)</td>
<td>Loamy Mucky Mineral (F1) (except MLRA 1)</td>
<td></td>
</tr>
<tr>
<td>Hydrogen Sulfide (A4)</td>
<td>Loamy Gleyed Matrix (F2)</td>
<td></td>
</tr>
<tr>
<td>Depleted Below Dark Surface (A11)</td>
<td>Depleted Matrix (F3)</td>
<td></td>
</tr>
<tr>
<td>Thick Dark Surface (A12)</td>
<td>Redox Dark Surface (F6)</td>
<td></td>
</tr>
<tr>
<td>Sandy Mucky Mineral (S1)</td>
<td>Depleted Dark Surface (F7)</td>
<td></td>
</tr>
<tr>
<td>Sandy Gleyed Matrix (S4)</td>
<td>Redox Depressions (F8)</td>
<td></td>
</tr>
</tbody>
</table>

Indicators for Problematic Hydric Soils³:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 cm Muck (A10)</td>
<td></td>
</tr>
<tr>
<td>Red Parent Material (TF2)</td>
<td></td>
</tr>
<tr>
<td>Very Shallow Dark Surface (TF12)</td>
<td></td>
</tr>
<tr>
<td>Other (Explain in Remarks)</td>
<td></td>
</tr>
</tbody>
</table>

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

Restrictive Layer (if present):

<table>
<thead>
<tr>
<th>Type:</th>
<th>Hydric Soil Present?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth (inches):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:

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

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water (A1)</td>
<td></td>
</tr>
<tr>
<td>High Water Table (A2)</td>
<td></td>
</tr>
<tr>
<td>Saturation (A3)</td>
<td></td>
</tr>
<tr>
<td>Water Marks (B1)</td>
<td></td>
</tr>
<tr>
<td>Sediment Deposits (B2)</td>
<td></td>
</tr>
<tr>
<td>Drift Deposits (B3)</td>
<td></td>
</tr>
<tr>
<td>Algal Mat or Crust (B4)</td>
<td></td>
</tr>
<tr>
<td>Iron Deposits (B5)</td>
<td></td>
</tr>
<tr>
<td>Surface Soil Cracks (B6)</td>
<td></td>
</tr>
<tr>
<td>Inundation Visible on Aerial Imagery (B7)</td>
<td>Other (Explain in Remarks)</td>
</tr>
<tr>
<td>Sparsely Vegetated Concave Surface (B8)</td>
<td>Other (Explain in Remarks)</td>
</tr>
</tbody>
</table>

Secondary Indicators (2 or more required)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</td>
<td>Other (Explain in Remarks)</td>
</tr>
<tr>
<td>Salt Crust (B11)</td>
<td></td>
</tr>
<tr>
<td>Aquatic Invertebrates (B13)</td>
<td></td>
</tr>
<tr>
<td>Hydrogen Sulfide Odor (C1)</td>
<td></td>
</tr>
<tr>
<td>Oxidized Rhizospheres along Living Roots (C3)</td>
<td></td>
</tr>
<tr>
<td>Presence of Reduced Iron (C4)</td>
<td></td>
</tr>
<tr>
<td>Recent Iron Reduction in Tilled Soils (C6)</td>
<td></td>
</tr>
<tr>
<td>Stunted or Stressed Plants (D1)</td>
<td>Other (Explain in Remarks)</td>
</tr>
<tr>
<td>FAC-Neutral Test (D5)</td>
<td></td>
</tr>
<tr>
<td>Raised Ant Mounds (D6) (LRR A)</td>
<td>Other (Explain in Remarks)</td>
</tr>
<tr>
<td>Frost-Heave Hummocks (D7)</td>
<td></td>
</tr>
</tbody>
</table>

Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes</th>
<th>No</th>
<th>X Depth (inches):</th>
<th>Wetland Hydrology Present?</th>
<th>Yes</th>
<th>X</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes</td>
<td>No</td>
<td>X Depth (inches):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes</td>
<td>No</td>
<td>X Depth (inches):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(includes capillary fringe)</td>
<td>Yes</td>
<td>No</td>
<td>X Depth (inches):</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Remarks:

Soil saturated to surface
Project/Site: HCRH State Trail E and F  
City/County: Hood River  
State: OR  
Sampling Date: 6/29/18

Applicant/Owner: ODOT  
Sampling Point: 7

Investigator(s): K Sargent/E Huston  
Section, Township, Range: 35, 3N, 10E

Landform (hillslope, terrace, etc.): concave  
Local relief (concave, convex, none): concave  
Slope (%): 2

Soil Map Unit Name: Wyeth very gravelly loam  
NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? 
Yes X No  
Remarks: (If no, explain in Remarks.)

Are Vegetation, Soil, or Hydrology significantly disturbed? 
Yes X No  
Remarks: (If needed, explain any answers in Remarks.)

Are Vegetation, Soil, or Hydrology naturally problematic? 
Yes X No  
Remarks: (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Are hydrophytic vegetation present? 
Yes X No

Are hydric soil present? 
Yes X No

Is the sampled area within a wetland? 
Yes X No

Remarks: Old roadway from I-84 to gravel pit

VEGETATION – Use scientific names of plants.

Tree Stratum  
1. 
2. 
3. 
4. 

Absolute % Cover Dominant Species? Indicator Status

= Total Cover

Sapling/Shrub Stratum  
1. 
2. 
3. 
4. 
5. 

= Total Cover

Herb Stratum  
1. Festuca rubra  
2. Epilobium ciliatum  
3. Mentha sp.  
4. Rumex crispus  
5. Carex sp.  
6. 
7. 
8. 
9. 
10. 
11. 

50 X FAC  
5 FACW  
30 X FACW  
5 FAC  
5 FACW

= Total Cover

Woody Vine Stratum

1. 
2. 

= Total Cover

% Bare Ground in Herb Stratum

Remarks:

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? 
Yes X No
SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>10YR 3/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Silt loam</td>
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<td>1-6</td>
<td>10YR 2/1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Gravely loam</td>
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<tr>
<td>6+</td>
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<td>Road base</td>
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</tbody>
</table>

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

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

Sandy Redox (S5)
Stripped Matrix (S6)
Loamy Mucky Mineral (F1) (except MLRA 1)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)

Indicators for Problematic Hydric Soils3:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Hydrology

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
= Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
Salt Crust (B11)
Aquatic Invertebrates (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres along Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Stunted or Stressed Plants (D1)
(LRR A)
Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
<th>Depth (inches):</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(includes capillary fringe)</td>
<td>Yes</td>
<td>No</td>
<td>Depth (inches):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wetland Hydrology Present? Yes X No

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

Remarks:
Soil saturated to surface
**WETLAND DETERMINATION DATA FORM** – Western Mountains, Valleys, and Coast Region

**Project/Site:** HCRH State Trail E and F  
**City/County:** Hood River  
**Sampling Date:** 6/29/18  
**Applicant/Owner:** ODOT  
**State:** OR  
**Sampling Point:** 8

**Investigator(s):** K Sargent/E Huston  
**Section, Township, Range:** 35N 10E  
**Landform (hillslope, terrace, etc.):** Local relief (concave, convex, none): None  
**Subregion (LRR):** A  
**Soil Map Unit Name:** Wyeth gravelly loam  
**NWI classification:** PEM

**Remarks:** Old HCRH roadbed

### VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 3'x3' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**= Total Cover**

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum (Plot size: 3'x3' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**= Total Cover**

<table>
<thead>
<tr>
<th>Herb Stratum (Plot size: 3'x3' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Rumex crispus</em></td>
<td>35</td>
<td>X</td>
<td>FAC</td>
</tr>
<tr>
<td>2. <em>Bromus secalinus</em></td>
<td>20</td>
<td>X</td>
<td>UPL</td>
</tr>
<tr>
<td>3. <em>Schedonorus arundinaceus</em></td>
<td>10</td>
<td></td>
<td>FAC</td>
</tr>
<tr>
<td>4. <em>Polypogon monspeliensis</em></td>
<td>5</td>
<td></td>
<td>FACW</td>
</tr>
<tr>
<td>5. <em>Mimulus guttatus</em></td>
<td>2</td>
<td></td>
<td>OBL</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
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<tr>
<td>9.</td>
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<tr>
<td>10.</td>
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</tr>
<tr>
<td>11.</td>
<td></td>
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</tr>
</tbody>
</table>

**= Total Cover**

<table>
<thead>
<tr>
<th>Woody Vine Stratum (Plot size: )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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</tr>
</tbody>
</table>

**= Total Cover**

| % Bare Ground in Herb Stratum | 28               |

**Remarks:**

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
</tbody>
</table>

**Is the Sampled Area within a Wetland?** Yes

**Hydrophytic Vegetation Present?** Yes

**Hydric Soil Present?** Yes

**Is the Sampled Area within a Wetland?** Yes

### Dominance Test worksheet:

- **Number of Dominant Species That Are OBL, FACW, or FAC:** 1
- **Total Number of Dominant Species Across All Strata:** 2
- **Percent of Dominant Species That Are OBL, FACW, or FAC:** 50

### Prevalence Index worksheet:

- **Total % Cover of OBL species:** 2
- **Total % Cover of FACW species:** 10
- **Total % Cover of FAC species:** 135
- **Total % Cover of UPL species:** 50

**Column Totals:** 247

**Prevalence Index = B/A =** 3.43

### Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%
3. Prevalence Index is ≤3.0
4. Morphological Adaptations
5. Wetland Non-Vascular Plants
6. Problematic Hydrophytic Vegetation

**Remarks:**

**Hydrophytic Vegetation Present?** Yes

**Remarks:**

**Hydrophytic Vegetation Present?** Yes

**Remarks:**
### SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>10YR 2/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gravely loam</td>
<td></td>
</tr>
<tr>
<td>2+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gravel/rock</td>
<td></td>
</tr>
</tbody>
</table>

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

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils³:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

**Restrictive Layer (if present):**

<table>
<thead>
<tr>
<th>Type:</th>
<th>Hydric Soil Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth (inches):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**


---

### HYDROLOGY

**Wetland Hydrology Indicators:**

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

**Secondary Indicators** (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

- Surface Water Present? Yes No X Depth (inches): ____________
- Water Table Present? Yes No X Depth (inches): ____________
- Saturation Present? Yes No X Depth (inches): ____________

**Remarks:**

- Soil saturated to surface

---

US Army Corps of Engineers

Western Mountains, Valleys, and Coast – Version 2.0
WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: HCRH State Trail E and F  City/County: Hood River  Sampling Date: 7/10/18
Applicant/Owner: ODOT  State: OR
Investigator(s): K Sargent/E Huston  Section, Township, Range: 35_N, 10_E
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None  Slope (%): 2
Subregion (LRR): A  Lat: 45.703079  Long: -121.608257  Datum:
Soil Map Unit Name: Wind River fine sandy loam  NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Yes X No (If needed, explain any answers in Remarks.)
Are Vegetation, Soil, or Hydrology naturally problematic? Yes X No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No  Is the Sampled Area within a Wetland? Yes X No
Hydric Soil Present? Yes X No  Wetland Hydrology Present? Yes X No

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 3' x 3' )
1. Fraxinus latifolia
2.
3.
4.
5.

Absolute % Cover = Total Cover
Dominant Species? = Total Cover
Indicator Status

100 X FACW

Domination Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species x 1 =
FACW species 110 x 2 = 220
FAC species x 3 =
FACU species 10 x 4 = 40
UPL species x 5 =
Column Totals: 120 (A) 260 (B)
Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5 - Wetland Non-Vascular Plants¹
Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes X No

Remarks:
## SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Color (moist)</th>
<th>%</th>
<th>Redox Features</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6</td>
<td></td>
<td>10YR 2/1</td>
<td>90</td>
<td></td>
<td>10YR 4/4</td>
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</tr>
</tbody>
</table>

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

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

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

### Hydric Soil Present?  Yes [x]  No

### Restrictive Layer (if present):

<table>
<thead>
<tr>
<th>Type:</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Remarks:

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

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

**Secondary Indicators (2 or more required):**

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

#### Field Observations:

- Surface Water Present?  Yes [x]  No
- Water Table Present?  Yes [x]  No  Depth (inches):  
- Saturation Present?  Yes [x]  No  Depth (inches):  
- (includes capillary fringe)  Yes [x]  No  Depth (inches):  6

- Wetland Hydrology Present?  Yes [x]  No

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

### Remarks:

Soil saturated to surface
**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

**Project/Site:** HCRH State Trail E and F  
**City/County:** Hood River  
**Sampling Date:** 7/10/18

**Applicant/Owner:** ODOT  
**State:** OR

**Investigator(s):** K Sargent/E Huston  
**Section, Township, Range:** 35, 3N, 10E  
**Landform (hillslope, terrace, etc.):** Local relief (concave, convex, none): None  
**Sampling Point:** 10  
**Subregion (LRR):** A  
**Latitude:** 45.703064  
**Longitude:** -121.608271  
**Datum:**

**Soil Map Unit Name:** Wind River fine sandy loam  
**NWI classification:**

**Are climatic / hydrologic conditions on the site typical for this time of year?** Yes X No  
(If no, explain in Remarks.)

**Are Vegetation, Soil, or Hydrology significantly disturbed?** Are “Normal Circumstances” present? Yes X No  
(If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

**Hydrophytic Vegetation Present?** Yes X No  
**Hydric Soil Present?** Yes X No  
**Wetland Hydrology Present?** Yes X No

**Remarks:**

**VEGETATION – Use scientific names of plants.**

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 3'x3' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acer macrophyllum</td>
<td>100</td>
<td>X</td>
<td>FACU</td>
</tr>
</tbody>
</table>

**Dominance Test worksheet:**

**Number of Dominant Species That Are OBL, FACW, or FAC:** 2 (A)
**Total Number of Dominant Species Across All Strata:** 4 (B)
**Percent of Dominant Species That Are OBL, FACW, or FAC:** 50 (A/B)

**Prevalence Index worksheet:**

**Total % Cover of:**  
- OBL species  
- FACW species x 2 = 20  
- FAC species x 3 = 60  
- FACU species x 4 = 480  
- UPL species x 5 =  

**Column Totals:** 150 (A) 560 (B)
**Prevalence Index = B/A =** 3.7

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0  
4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)  
5 - Wetland Non-Vascular Plants1  
6 - Problematic Hydrophytic Vegetation1 (Explain)

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

**Hydrophytic Vegetation Present?** Yes X No
## Soil Sampling Point: 10

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>10YR 3/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-12</td>
<td>10YR 3/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

### Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

### Restrictive Layer (if present):

<table>
<thead>
<tr>
<th>Type:</th>
<th>Hydric Soil Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
</table>

### Hydrology

#### Wetland Hydrology Indicators:

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

**Secondary Indicators (2 or more required)**

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1)
- Oxidized Rhizospheres along Living Roots (C3)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

### Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
</tr>
</tbody>
</table>

### Wetland Hydrology Present?

- Yes | No | X

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

### Remarks:

...
WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: HCRH State Trail E and F  City/County: Hood River  Sampling Date: 2/5/19
Applicant/Owner: ODOT  State: OR  Sampling Point: 1
Investigator(s): K Sargent/E Huston  Section, Township, Range: 35, 3N, 10E
Landform (hillslope, terrace, etc.):  Local relief (concave, convex, none): None  Slope (%): 2
Subregion (LRR): A  Lat: 45.703064  Long: -121.608271  Datum: 
Soil Map Unit Name: Wind River fine sandy loam  NWI classification: 

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X]  No [ ] (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? [ ] Are “Normal Circumstances” present? Yes [X]  No [ ]
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes [X]  No [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes [X]   No [ ]</td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes [X]   No [ ]</td>
</tr>
</tbody>
</table>

Remarks: Wetland B

VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 3’x3’ )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  <em>Fraxinus latifolia</em></td>
<td>100 X</td>
<td>FACW</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3.</td>
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<tr>
<td>4.</td>
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<tr>
<td>5.</td>
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</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum (Plot size: 3’x3’ )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  <em>Rubus ursinus</em></td>
<td>25 X</td>
<td>FACU</td>
<td></td>
</tr>
<tr>
<td>2.</td>
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<td></td>
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</tr>
<tr>
<td>3.</td>
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<tr>
<td>4.</td>
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<tr>
<td>5.</td>
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</tr>
<tr>
<td>= Total Cover</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Herb Stratum (Plot size: 3’x3’ )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  <em>Elymus repens</em></td>
<td>25 X</td>
<td>FAC</td>
<td></td>
</tr>
<tr>
<td>2.  <em>Polystichum muninum</em></td>
<td>10 X</td>
<td>FAC</td>
<td></td>
</tr>
<tr>
<td>3.  <em>Equisetum hyemale</em></td>
<td>25 x</td>
<td>FACW</td>
<td></td>
</tr>
<tr>
<td>4.</td>
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<tr>
<td>5.</td>
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<td></td>
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<tr>
<td>= Total Cover</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Woody Vine Stratum (Plot size: )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% Bare Ground in Herb Stratum

Dominance Test worksheet:

<table>
<thead>
<tr>
<th>Number of Dominant Species That Are OBL, FACW, or FAC:</th>
<th>2 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Dominant Species Across All Strata:</td>
<td>4 (B)</td>
</tr>
<tr>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC:</td>
<td>50 (A/B)</td>
</tr>
</tbody>
</table>

Prevalence Index worksheet:

<table>
<thead>
<tr>
<th>Total % Cover of:</th>
<th>Multiply by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL species</td>
<td>x 1 =</td>
</tr>
<tr>
<td>FACW species</td>
<td>135 x 2 = 270</td>
</tr>
<tr>
<td>FAC species</td>
<td>25 x 3 = 75</td>
</tr>
<tr>
<td>FACU species</td>
<td>35 x 4 = 140</td>
</tr>
<tr>
<td>UPL species</td>
<td>x 5 =</td>
</tr>
<tr>
<td>Column Totals:</td>
<td>195 (A) 485 (B)</td>
</tr>
<tr>
<td>Prevalence Index  = B/A = &lt;3</td>
<td></td>
</tr>
</tbody>
</table>

Hydrophytic Vegetation Indicators:

1. - Rapid Test for Hydrophytic Vegetation
2. - Dominance Test is >50%
3. - Prevalence Index is ≤3.01
4. - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
5. - Wetland Non-Vascular Plants1
6. - Problematic Hydrophytic Vegetation1 (Explain)

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

Hydrophytic Vegetation Present? Yes [X]  No [ ]

Remarks: Oregon ash tree was rooted near wetland boundary.
## SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-16</td>
<td>10YR 2.5/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sandy loam</td>
<td></td>
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</table>

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

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

### Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

### Restrictive Layer (if present):

<table>
<thead>
<tr>
<th>Type:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth (inches):</td>
<td></td>
</tr>
</tbody>
</table>

### HYDROLOGY

#### Wetland Hydrology Indicators:

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

**Secondary Indicators (2 or more required)**

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

#### Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
<th>Depth (inches):</th>
<th></th>
<th>Wetland Hydrology Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
<td>Depth (inches):</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Remarcs:

Dry
VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 3'x3' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fraxinus latifolia</td>
<td>100</td>
<td>X</td>
<td>FACW</td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>Total Number of Dominant Species Across All Strata: 3 (B)</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)</td>
</tr>
<tr>
<td>4.</td>
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<tr>
<td></td>
<td>= Total Cover</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum (Plot size: 3'x3' )</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Prevalence Index worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rubus ursinus</td>
<td>25</td>
<td>X</td>
<td>FACU</td>
<td>Total % Cover of: Multiply by:</td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<td></td>
<td>OBL species x 1 =</td>
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<tr>
<td>3.</td>
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<td>FACW species x 2 =</td>
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<td>FAC species x 3 =</td>
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<td>5.</td>
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<td></td>
<td>FACU species x 4 =</td>
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<td></td>
<td>UPL species x 5 =</td>
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<td>= Total Cover</td>
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<td>Column Totals: (A) (B)</td>
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<td>Prevalence Index = B/A =</td>
</tr>
</tbody>
</table>

% Bare Ground in Herb Stratum

Remarks: Oregon ash tree was rooted near wetland boundary.
### SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-16</td>
<td>10YR 2.5/2</td>
<td></td>
<td></td>
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<td>Sandy loam</td>
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</tbody>
</table>

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

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

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

### Hydric Soil Present? Yes | No | X

### HYDROLOGY

### Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

### Field Observations:

- Surface Water Present? Yes | No | X
- Water Table Present? Yes | No | X
- Saturation Present? Yes | No | X

### Wetland Hydrology Present? Yes | No | X

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

Remarks: Dry
**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

**Project/Site:** HCRH State Trail E and F  
**City/County:** Hood River  
**Sampling Date:** 2/5/19

**Applicant/Owner:** ODOT  
**State:** OR

**Investigator(s):** K Sargent/E Huston  
**Section, Township, Range:** 35N, 3N, 10E  
**Landform (hillslope, terrace, etc.):** Local relief (concave, convex, none): None

**Subregion (LRR):** A  
**Lat:** 45.703064  
**Long:** -121.608271  
**Datum:**

**Soil Map Unit Name:** Wind River fine sandy loam  
**NWI classification:**

**Are climatic / hydrologic conditions on the site typical for this time of year?** Yes [X] No  
**Are Vegetation, Soil, or Hydrology significantly disturbed?**  
**Are "Normal Circumstances" present?** Yes [X] No  
**Are Vegetation, Soil, or Hydrology naturally problematic?**  

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Remarks:** Wetland B

**VEGETATION – Use scientific names of plants.**

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 3’x3’)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fraxinus latifolia</td>
<td>100</td>
<td>X</td>
<td>FACW</td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
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<tr>
<td>4.</td>
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</tr>
</tbody>
</table>

**Sapling/Shrub Stratum (Plot size: 3’x3’)**

| 1.                               |                   |                   |                   |
| 2.                               |                   |                   |                   |
| 3.                               |                   |                   |                   |
| 4.                               |                   |                   |                   |
| 5.                               |                   |                   |                   |

**Herb Stratum (Plot size: 3’x3’)**

| 1. Equisetum hyemale            | 75               | X                 | FACW             |
| 2.                               |                  |                   |                  |
| 3.                               |                  |                   |                  |
| 4.                               |                  |                   |                  |
| 5.                               |                  |                   |                  |

**Woody Vine Stratum (Plot size: )**

| 1.                               |                   |                   |                   |
| 2.                               |                   |                   |                   |

**% Bare Ground in Herb Stratum**

**Hydrophytic Vegetation Present?** Yes [X] No

**Remarks:** Oregon ash tree was rooted near wetland boundary.

<table>
<thead>
<tr>
<th>Dominance Test worksheet:</th>
<th>Number of Dominant Species That Are OBL, FACW, or FAC:</th>
<th>2 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Dominant Species Across All Strata:</td>
<td>2 (B)</td>
<td></td>
</tr>
<tr>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC:</td>
<td>100 (A/B)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevalence Index worksheet:</th>
<th>Total % Cover of: Multiply by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL species</td>
<td>x 1 =</td>
</tr>
<tr>
<td>FACW species</td>
<td>x 2 =</td>
</tr>
<tr>
<td>FAC species</td>
<td>x 3 =</td>
</tr>
<tr>
<td>FACU species</td>
<td>x 4 =</td>
</tr>
<tr>
<td>UPL species</td>
<td>x 5 =</td>
</tr>
<tr>
<td>Column Totals:</td>
<td>(A) (B)</td>
</tr>
<tr>
<td>Prevalence Index = B/A = 2</td>
<td></td>
</tr>
</tbody>
</table>

**Hydrophytic Vegetation Indicators:**

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [X] 2 - Dominance Test is >50%
- [X] 3 - Prevalence Index is ≤3.01
- [X] 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
- [X] 5 - Wetland Non-Vascular Plants1

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

**Hydrophytic Vegetation Present?** Yes [X] No
### SOIL

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

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Color (moist)</th>
<th>%</th>
<th>Color (moist)</th>
<th>%</th>
<th>Type¹</th>
<th>Loc²</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6</td>
<td>10YR 2.5/2</td>
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</tr>
<tr>
<td>6-18</td>
<td>10YR 2.5/2</td>
<td>7.5 YR 4/3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>Sandy loam</td>
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</tbody>
</table>

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

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

- Histosol (A1)  
- Histic Epipedon (A2)  
- Black Histic (A3)  
- Hydrogen Sulfide (A4)  
- Depleted Below Dark Surface (A11)  
- Thick Dark Surface (A12)  
- Sandy Mucky Mineral (S1)  
- Sandy Gleyed Matrix (S4)

**Indicators for Problematic Hydric Soils:³**

- 2 cm Muck (A10)  
- Red Parent Material (TF2)  
- Very Shallow Dark Surface (TF12)  
- Other (Explain in Remarks)

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

**Restrictive Layer (if present):**

- **Type:**  
- **Depth (inches):**

**Remarks:**

---

### HYDROLOGY

**Wetland Hydrology Indicators:**

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

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

**Secondary Indicators (2 or more required)**

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

**Field Observations:**

- **Surface Water Present?**  
- **Water Table Present?**  
- **Saturation Present?**  
- **(includes capillary fringe)**  

**Wetland Hydrology Present?**  

**Remarks:**

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

Dry
Appendix D

Historical Info
Advertising for quarry at Mitchell Point.
Plat Map showing Talus pit/Quarry

1952. Aerial photograph showing pits (arrow) and I-84 under construction.
Quarry area

1966 photo of I-84 and quarry vicinity.