Response to Perteet’s Wetland Review Memorandum dated May 19, 2014
June 12, 2014

City of Black Diamond
Attn: Stacey Welsh, Community Development Director
PO Box 599
Black Diamond, WA 98010

Re: Response to Perteet’s Wetland Review Memorandum dated May 19, 2014

Dear Ms. Welsh,

Please find below, quoted comments in bold from the Perteet memorandum - The Villages MPD Phase 2 Place C – Wetland Review - followed by the Wetland Resources, Inc. (WRI) response. The response is only catered toward Perteet’s Comment 1 identified below.

1. Wetland determination data forms from the original delineation in 2008 were resubmitted by Wetland Resources, Inc. Using the current Corps of Engineers wetland delineation data forms (U.S. Army Corps of Engineers 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region). The location of most of these soil pits was shown on the Sensitive Area Study and Wildlife Analysis Map for Villages Phase 2 Plat C. This indicates paired wetland/upland plots were provided for Wetland E1 (Plots E1, E2, and E6) and Wetland TOS (Plots E3, E4, and E7). However, the following are missing or incomplete:

   a. Data forms of paired wetland/upland plots for Wetlands E7, E8, E10, and 213 were not provided.

   Applicant’s Response (4/28/14 – Date Added by WRI):
   The data provided as part of Phase 2 Plat C’s Wetland Review was for reference purposes only and represents what was originally submitted and approved for this portion of The Villages MPD. The wetland delineations as outlined in the Constraints Map (Exhibit G to The Villages MPD Development Agreement) are deemed final and complete through the term of the DA, pursuant to Section 8.2.1, and therefore additional paired data sites were not provided.
Perteet Follow-Up Response:
Data forms are supportive information to document the vegetation, soils, and hydrology characteristics of the wetlands and adjacent uplands. Data forms were provided for some wetlands and not others. For consistency of the report, and completeness of data represented, it is requested that data forms be provided.

Noted – As requested an additional site visit was conducted June 4, 2014 and data was taken to provide complete paired data for all the wetlands within the Villages Phase 2 Plat C (attached). The attached map depicts the locations of the previously documented data sites as well as the newly collected data sites. Please note, the purpose of this data is for reference only and not intended to represent a new delineation.

Thank you for your time and careful review of this project. If you have any questions or need further information regarding this project, please feel free to contact me at 425.337.3174.

Sincerely

Wetland Resources, Inc.

Scott Brainard, PWS
Principal Wetland Ecologist
WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: The Villages Phase 2 Plat C
City/County: Black Diamond
Sampling Date: 6/4/14
Applicant/Owner: Bd Villages Partners, LP
State: WA
Sampling Point: S1
Investigator(s): SB, AB
Section, Township, Range: 15, 21N, 06E
Landform (hillslope, terrace, etc.): Subregion (LRR): LRR-A
Local relief (concave, convex, none): Lat: 4° 18′ 18.73″ N
Slope (%): Long: 122° 01′ 27.17″ W
Datum: WGS 84
Soil Map Unit Name: Everett Gravelly Sandy Loam, 5 to 15 percent slopes
NWI classification: 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 ☐
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 ☑ No ☐</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes ☐ No ☑</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes ☑ No ☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes ☑ No ☐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size):</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pseudotsuga menziesii</td>
<td>70 Y FacU</td>
<td></td>
<td></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: 5 (B)</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)</td>
</tr>
<tr>
<td>4.</td>
<td></td>
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<tr>
<td>Sapling/Shrub Stratum (Plot size):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Rubus spectabilis</td>
<td>30 Y Fac</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Acer circinatum</td>
<td>10 Y Fac</td>
<td></td>
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<td>3.</td>
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<td>4.</td>
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<td>5.</td>
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<tr>
<td>Herb Stratum (Plot size):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Polystichum munitum</td>
<td>60 Y FacU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Dicentra formosa</td>
<td>10 N FacU</td>
<td></td>
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<td>3.</td>
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<td>6.</td>
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<td>7.</td>
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<td>8.</td>
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<tr>
<td>9.</td>
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<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>70 = Total Cover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woody Vine Stratum (Plot size):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Bare Ground in Herb Stratum</td>
<td></td>
<td>= Total Cover</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤3.0
☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ 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 ☑ No ☐

US Army Corps of Engineers
Western Mountains, Valleys, and Coast – Version 2.0
### 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>0-4&quot;</td>
<td>10 YR 2/2</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-12&quot;</td>
<td>10 YR 3/3</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-18&quot;</td>
<td>10 YR 3/4</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

1. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.
2. 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)

**Indicators for Problematic Hydric Soils**:
- 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 [✓]

**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 (R5)
  - 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 Sulfido 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)

**Field Observations:**
- **Surface Water Present?** Yes [ ] No [✓]
- **Water Table Present?** Yes [ ] No [✓]
- **Saturation Present?** Yes [ ] No [✓]

**Remarks:**

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

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

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

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**Project/Site:** The Villages Phase 2 Plat C  |  **City/County:** Black Diamond  |  **Sampling Date:** 6/4/14  
**Applicant/Owner:** BD Villages Partners, LP  |  **State:** WA  |  **Sampling Point:** 52  
**Investigator(s):** SB, AB  |  **Section, Township, Range:** 15, 21N, 08E  
**Landform (hillside, terrace, etc.):**  |  **Local relief (concave, convex, none):**  |  **Slope (%):**  
**Subregion (LRR):** LRR-A  |  **Lat:** 4° 18’ 18.73” N  |  **Long:** 122° 01’ 27.17” W  |  **Datum:** WGS 84  
**Soil Map Unit Name:** Everett Gravelly Sandy Loam, 5 to 15 percent slopes  |  **NWI classification:**  

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

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**Remarks:**

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

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</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>Total Number of Dominant Species Across All Strata: 5 (B)</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)</td>
</tr>
<tr>
<td>4.</td>
<td>50 = Total Cover</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5.</td>
<td></td>
<td></td>
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<th>Sapling/Shrub Stratum (Plot size):</th>
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<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rubus spectabilis</td>
<td>60 Y FacU</td>
<td></td>
<td></td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)</td>
</tr>
<tr>
<td>2. Sambucus racemosa</td>
<td>10 N FacU</td>
<td></td>
<td></td>
<td>Total Number of Dominant Species Across All Strata: 5 (B)</td>
</tr>
<tr>
<td>3. Acer circinatum</td>
<td>20 Y FacU</td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)</td>
</tr>
<tr>
<td>4.</td>
<td>80 = Total Cover</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5.</td>
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<td></td>
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<table>
<thead>
<tr>
<th>Herb Stratum (Plot size):</th>
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<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Athyrium felix-femina</td>
<td>30 Y FacU</td>
<td></td>
<td></td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)</td>
</tr>
<tr>
<td>2. Polystichum munitum</td>
<td>20 Y FacU</td>
<td></td>
<td></td>
<td>Total Number of Dominant Species Across All Strata: 5 (B)</td>
</tr>
<tr>
<td>3.</td>
<td>80 = Total Cover</td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
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<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>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>50 = Total Cover</td>
<td></td>
<td></td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (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 = 0</td>
</tr>
<tr>
<td>FACW species</td>
<td>x 2 = 0</td>
</tr>
<tr>
<td>FAC species</td>
<td>x 3 = 0</td>
</tr>
<tr>
<td>FACU species</td>
<td>x 4 = 0</td>
</tr>
<tr>
<td>UPL species</td>
<td>x 5 = 0</td>
</tr>
<tr>
<td>Column Totals:</td>
<td>(A) 0</td>
</tr>
</tbody>
</table>

**Prevalence Index = B/A =**

**Hydrophytic Vegetation Indicators:**

☑️ Rapid Test for Hydrophytic Vegetation
☑️ Dominance Test is >50%
☑️ Prevalence Index is ≤3.0
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
☐ Wetland Non-Vascular Plants
☐ Problematic Hydrophytic Vegetation (Explain)

**Remarks:**

---

US Army Corps of Engineers  | Western Mountains, Valleys, and Coast – Version 2.0
### 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>
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<th>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12&quot;</td>
<td>2.5 Y 2.5/1</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-12&quot;</td>
<td>2.5 Y 3/1</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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

### Hydric Soil Indicators:

(Applicable to all LRRs, unless otherwise noted.)

- Histisol (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 (F3)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Redox Depressions (F8)

### Indicators for Problematic Hydric Soils:

- 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 [X]
- No [ ]

### HYDROLOGY

### Wetland Hydrology Indicators:

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

- Surface Water (A1)
- High Water Table (A2)
- Saturated (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)
- Spsarately 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)

### Field Observations:

- Surface Water Present? Yes [X] No [ ] Depth (inches):
- Water Table Present? Yes [X] No [ ] Depth (inches):
- Saturation Present? (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:
WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: The Villages Phase 2 Plat C City/County: Black Diamond Sampling Date: 6/4/14
Applicant/Owner: Bd Villages Partners, LP State: WA Sampling Point: S3
Investigator(s): SB_AB Section, Township, Range: 15, 21N, 08E
Landform (hillslope, terrace, etc.): ____________________ Local relief (concave, convex, none): ____________ Slope (%): ____________
Subregion (LRR): LRR-A Lat: 4° 18' 18.73" N Long: 122° 01' 27.17" W Datum: WGS 84
Soil Map Unit Name: Everett Gravelly Sandy Loam, 5 to 15 percent slopes NWI classification: ________________________

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□
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.

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

Remarks:

VEGETATION – Use scientific names of plants.

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<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pseudotsuga menziesii</td>
<td>70</td>
<td>Y</td>
<td>FacU</td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)</td>
</tr>
<tr>
<td>2. Tsuga Heterophylla</td>
<td>20</td>
<td>Y</td>
<td>FacU</td>
<td>Total Number of Dominant Species Across All Strata: 5 (B)</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td>Total % Cover of:</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td>OBL species x 1 = 0</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td>FACW species x 2 = 0</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td>FAC species 50 x 3 = 150</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td>FACU species 160 x 4 = 640</td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td>UPL species x 5 = 0</td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td>Column Totals: 210 (A)</td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td>Prevalence Index = B/A = 3.75</td>
</tr>
</tbody>
</table>

Hydrophytic Vegetation indicators:
□ Rapid Test for Hydrophytic Vegetation
□ Dominance Test is >50%
□ Prevalence Index is ≤ 3.0
□ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
□ Wetland Non-Vascular Plants
□ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes□ 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>Color (moist)</th>
<th>Matrix</th>
<th>Redox Features</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 8&quot;</td>
<td>10 YR 3/2</td>
<td></td>
<td></td>
<td>sil</td>
<td></td>
</tr>
<tr>
<td>8 - 18&quot;</td>
<td>10 YR 3/4</td>
<td></td>
<td></td>
<td>sil</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 Soils:**

- 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 [√]

**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 Sulfido 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 [ ] No [√] Depth (inches): 
- Water Table Present? Yes [ ] No [√] Depth (inches): 
- Saturation Present? Yes [ ] No [√] Depth (inches): (includes capillary fringe)

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

**Remarks:**

---

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: The Villages Phase 2 Plat C            City/County: Black Diamond            Sampling Date: 6/4/14
Applicant/Owner: Bd Villages Partners, LP            State: WA            Sampling Point: 54
Investigator(s): SB, AB            Section, Township, Range: 15, 21N, 06E
Landform (hillslope, terrace, etc.):                   Local relief (concave, convex, none):   Slope (%):        
Subregion (LRR): LRR-A        Lat: 4° 18’ 18.73” N Long: 122° 01’ 27.17” W Datum: WGS 84
Soil Map Unit Name: Everett Gravelly Sandy Loam, 5 to 15 percent slopes        NWI classification:        
Are climatic / hydrologic conditions on the site typical for this time of year? Yes [ ] No [X] (If no, explain in Remarks.)
Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly 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>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes [X] No [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes [X] No [ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes [X] No [ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size:</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pseudotsuga menziesii</td>
<td>50</td>
<td>Y FacU</td>
<td></td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>Total Number of Dominant Species Across All Strata: 5 (B)</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)</td>
</tr>
<tr>
<td>4.</td>
<td>50</td>
<td></td>
<td>Total Cover</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum (Plot size:</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rubus spectabilis</td>
<td>60</td>
<td>Y Fac</td>
<td></td>
</tr>
<tr>
<td>2. Acer Circinatum</td>
<td>20</td>
<td>Y Fac</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>70</td>
<td></td>
<td>Total Cover</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Herb Stratum (Plot size:</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Athyrium filix-femina</td>
<td>30</td>
<td>Y Fac</td>
<td></td>
</tr>
<tr>
<td>2. Polystichum munitum</td>
<td>10</td>
<td>N FacU</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>
<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>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>50</td>
<td></td>
<td>Total Cover</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>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>

Remarks:

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☑ Dominance Test is >50%
☐ Prevalence Index is ≤3.0
☐ Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
☐ 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 [ ]
### 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>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 10&quot;</td>
<td></td>
<td>2.5 Y 2.5/1</td>
<td>100</td>
<td>10 YR 4/4</td>
<td>15</td>
<td>C</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 - 18&quot;</td>
<td></td>
<td>2.5 Y 3/1</td>
<td>85</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.)

- Histisol (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 (S6)
- 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 Soils**: 2

- 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):   

**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)
- Drill 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)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquifer (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

- Surface Water Present? Yes [x] No [ ] Depth (inches):   
- Water Table Present? Yes [x] No [ ] Depth (inches):   
- Saturation Present? Yes [x] No [ ] Depth (inches): 8"   

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

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: The Villages Phase 2 Plat C
City/County: Black Diamond
Sampling Date: 6/4/14
Aplicant/Owner: Bd Villages Partners, LP
State: WA
Sampling Point: S5
Investigator(s): SB, AB
Section, Township, Range: 15, 21N, 06E
Landform (hillslope, terrace, etc.): ____________________________
Local relief (concave, convex, none): ____________________________
Slope (%): ____________________________
Subregion (LRR): LRR-A
Lat: 44° 18' 18.73" N
Long: 122° 01' 27.17" W
Datum: WGS 84
Soil Map Unit Name: Everett Gravelly Sandy Loam, 5 to 15 percent slopes
NWI classification: ____________________________
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 ☐
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 ☑ No ☐</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes ☑ No ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes ☑ No ☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes ☑ No ☐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size:</th>
<th>Absolute % Cover</th>
<th>Dominant Indicator Species? Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pseudotsuga menziesii</td>
<td>60</td>
<td>Y FacU</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>Total Number of Dominant Species Across All Strata: 4 (B)</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sapling/Shrub Stratum (Plot size:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubus spectabilis</td>
<td>20</td>
<td>Y Fac</td>
<td></td>
</tr>
<tr>
<td>2. Acer Circinatum</td>
<td>20</td>
<td>Y Fac</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>
<tr>
<td>Herb Stratum (Plot size:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polystichum munitum</td>
<td>40</td>
<td>Y FacU</td>
<td></td>
</tr>
<tr>
<td>2. Dicentra Formosa</td>
<td>60</td>
<td>Y FacU</td>
<td></td>
</tr>
<tr>
<td>3. Maianthemum dilatatum</td>
<td>10</td>
<td>N FacU</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>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woody Vine Stratum (Plot size:</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>
</tbody>
</table>

| % Bare Ground in Herb Stratum      |                   |                                   |                           |

Remarks:

Hydrophytic Vegetation Indicators:
☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤3.0¹
☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ 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 ☐ No ☑
### Soil

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

<table>
<thead>
<tr>
<th>Depth</th>
<th>Matrix</th>
<th>Redox Features</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(inches)</td>
<td>Color (moist)</td>
<td>%</td>
<td>Color (moist)</td>
<td>%</td>
</tr>
<tr>
<td>0 - 6&quot;</td>
<td>10 YR 3/2</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 - 18&quot;</td>
<td>10 YR 3/4</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

- Histosol (A1)
- Histosol 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 (S8)
- 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 Soils:**

- 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 [ √ ]

**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? Yes [ ] No [ √ ] Depth (inches): 
- Water Table Present? Yes [ ] No [ √ ] Depth (inches): 
- Saturation Present? Yes [ ] No [ √ ] Depth (inches): 

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

**Remarks:**

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: The Villages Phase 2 Plat C
City/County: Black Diamond
Sampling Date: 6/4/14
Applicant/Owner: Bd Villages Partners, LP
State: WA
Sampling Point: S8
Investigator(s): SB, AB
Section, Township, Range: 15, 21N, 06E
Landform (hillslope, terrace, etc.): ____________________________
Local relief (concave, convex, none): ____________________________
Slope (%): ____________________________
Subregion (LRR): LRR-A
Lat: 41° 10' 18.73" N
Long: 122° 01' 27.17" W
Datum: WGS 84
Soil Map Unit Name: Everett Gravelly Sandy Loam, 5 to 15 percent slopes
NWI classification: ____________________________
Are climatic and 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 □
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 □ No □</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes □ No □</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes □ No □</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes □ No □</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 1)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thuja plicata</td>
<td>40</td>
<td>Y</td>
<td>Fac</td>
</tr>
<tr>
<td>Tsuga heterophylla</td>
<td>20</td>
<td>Y</td>
<td>FacU</td>
</tr>
<tr>
<td>Acer circinatum</td>
<td>20</td>
<td>Y</td>
<td>Fac</td>
</tr>
<tr>
<td>Rubus spectabilis</td>
<td>20</td>
<td>Y</td>
<td>Fac</td>
</tr>
<tr>
<td>Oplopanax horridus</td>
<td>10</td>
<td>Y</td>
<td>Fac</td>
</tr>
<tr>
<td>Athyrium filix-femina</td>
<td>50</td>
<td>Y</td>
<td>Fac</td>
</tr>
<tr>
<td>Stachys ochiena</td>
<td>30</td>
<td>Y</td>
<td>Fac</td>
</tr>
<tr>
<td>Lysichiton americanus</td>
<td>20</td>
<td>Y</td>
<td>Fac</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>N</td>
<td>Obl</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>Y</td>
<td>Fac</td>
</tr>
</tbody>
</table>

Woody Vine Stratum (Plot size: 1)

<table>
<thead>
<tr>
<th>% Bare Ground in Herb Stratum</th>
</tr>
</thead>
</table>

Remarks:

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FAC, or FAC: 6 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FAC, or FAC: 85.71% (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species x 1 = 0
FACW species x 2 = 0
FAC species x 3 = 0
FACU species x 4 = 0
UPL species x 5 = 0
Column Totals: 0 (A) 0 (B)
Prevalence Index = 8/A = ________

Hydrophytic Vegetation Indicators:
□ Rapid Test for Hydrophytic Vegetation
□ Dominance Test is >50%
□ Prevalence Index is ≤3.0%
□ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
□ Wetland Non-Vascular Plants
□ Problematic Hydrophytic Vegetation (Explain)

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

Hydrophytic Vegetation Present? Yes □ No □
### Soil Profile Description:

<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>Type</th>
<th>Loc</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 6&quot;</td>
<td>2.5 Y 2.5/1</td>
<td>100</td>
<td></td>
<td></td>
<td>10 YR 4/4</td>
<td>15</td>
<td>RM</td>
<td>M</td>
<td>sil</td>
<td></td>
</tr>
<tr>
<td>6 - 18&quot;</td>
<td>2.5 Y 4/2</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>sil</td>
<td></td>
</tr>
</tbody>
</table>

1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  3Location: 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)
- Depressed 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)
- Depressed Matrix (F3)
- Redox Dark Surface (F6)
- Depressed Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- 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 [ ]

**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:**

- Surface Water Present? Yes [✔] No [ ] Depth (inches): _______________
- Water Table Present? Yes [ ] No [✔] Depth (inches): _______________
- Saturation Present? Yes [✔] No [ ] Depth (inches): Surface

**Wetland Hydrology Present?** Yes [✔] 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: The Villages Phase 2 Plat C  
City/County: Black Diamond  
State: WA  
Sampling Date: 6/4/14

Applicant/Owner: Bd Villages Partners, LP  
Sampling Point: S7

Landform (hillslope, terrace, etc.):  
Local relief (concave, convex, none):  
Slope (%):  
Subregion (LRR): LRR-A  
Lat: 41° 18' 18.73" N  
Long: 122° 01' 27.17" W  
Datum: WGS 84

Soil Map Unit Name: Everett Gravely Sandy Loam, 5 to 15 percent slopes  
NWI classification:  
Are climatic/hydrologic conditions on the site typical for this time of year? Yes[☑] No[ ]  
(f no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed?  
Are "Normal Circumstances" present? Yes[☑] 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[☑] No[ ]</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes[ ] No[☑]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes[ ] No[☑]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes[☑] No[ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

VEGETATION – Use scientific names of plants.

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size:</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tsuga heterophylla</td>
<td>60</td>
<td>Y</td>
<td>FacU</td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)</td>
</tr>
<tr>
<td>2. Alnus Rubra</td>
<td>30</td>
<td>Y</td>
<td>Fac</td>
<td>Total Number of Dominant Species Across All Strata: 5 (B)</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)</td>
</tr>
<tr>
<td>Sapling/Shrub Stratum (Plot size:</td>
<td></td>
<td></td>
<td></td>
<td>Prevalence Index worksheet:</td>
</tr>
<tr>
<td>1. Acer circinatum</td>
<td>30</td>
<td>Y</td>
<td>Fac</td>
<td>Multiply by:</td>
</tr>
<tr>
<td>2. Rubus spectabilis</td>
<td>20</td>
<td>Y</td>
<td>Fac</td>
<td>OBL species x 1 = 0</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td>FACW species x 2 = 0</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td>FAC species x 3 = 0</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td>FACU species x 4 = 0</td>
</tr>
<tr>
<td>Herb Stratum (Plot size:</td>
<td>50</td>
<td>Y</td>
<td>FacU</td>
<td>UPL species x 5 = 0</td>
</tr>
<tr>
<td>1. Polystichum munitum</td>
<td>50</td>
<td>Y</td>
<td>FacU</td>
<td>Column Totals: 0 (A)</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>0 (B) (L)</td>
</tr>
</tbody>
</table>

Prevalence Index = B/A =  

Hydrophytic Vegetation Indicators:  
□ Rapid Test for Hydrophytic Vegetation  
☑ Dominance Test is >50%  
□ Prevalence Index is ≤3.0^  
□ Morphological Adaptations^ (Provide supporting data in Remarks or on a separate sheet)  
□ Wetland Non-Vascular Plants^  
□ Problematic Hydrophytic Vegetation^ (Explain)  

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

Hydrophytic Vegetation Present? Yes[☑] 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>Matrix</th>
<th>Color (moist)</th>
<th>%</th>
<th>Redox Features</th>
<th>Type</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 4&quot;</td>
<td></td>
<td>10YR 3/2</td>
<td>100</td>
<td></td>
<td></td>
<td>duff</td>
<td></td>
</tr>
<tr>
<td>4 - 18&quot;</td>
<td></td>
<td>10 YR 3/4</td>
<td>100</td>
<td></td>
<td></td>
<td>grl</td>
<td></td>
</tr>
</tbody>
</table>

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3Location: PL=Pore Lining, M=Matrix.

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- 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 Soils:**

- 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:**

---

**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)
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  - Aquatic Invertebrates (B13)
  - Hydrogen Sulfide Odor (C1)
  - 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)
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  - 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):________
  (Includes capillary fringe)

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

**Remarks:**

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

Remarks: