

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 24-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 33A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 10 T 21 S R 10 E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.7723 Long.: -121.5183 Datum: NAD83
 Soil Map Unit Name: 144A: Sunriver sandy loam, 0 to 3 percent slopes NWI classification: PSSC

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, et

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: Off-site determination. No digging allowed without a state cultural resource permit. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|--|------------------|---|
| 1. <u>Pinus contorta</u> | 5 | <input checked="" type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 2. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 5 = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: <u>60</u> Multiply by: OBL species <u>130</u> x 1 = <u>130</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>165</u> (A) <u>205</u> (B) Prevalence Index = B/A = <u>1.242</u> |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <u>Salix exigua</u> | 60 | <input checked="" type="checkbox"/> 100.0% | OBL | |
| 2. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <u></u> | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 5. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 60 = Total Cover | | | | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <u>Carex aquatilis</u> | 70 | <input checked="" type="checkbox"/> 70.0% | OBL | |
| 2. <u>Juncus balticus</u> | 30 | <input checked="" type="checkbox"/> 30.0% | FACW | |
| 3. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 5. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 6. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 7. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 8. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 9. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 10. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 11. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 100 = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <u></u> | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 2. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 0 = Total Cover | 0 | | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |
| Remarks: | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 33A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
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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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC SOILS BASED ON HYDROLOGY

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

| | | | | | |
|--|--|--|--|-------------------------------|--|
| Project/Site: DESCHUTES LWI | | City/County: SUNRIVER/DESCHUTES | | Sampling Date: 24-Jun-10 | |
| Applicant/Owner: DESCHUTES COUNTY | | State: OR | | Sampling Point: SP 35A | |
| Investigator(s): ALISON SIGLER, SARAH HARTUNG | | Section, Township, Range: S 10 T 21 S R 10 E | | | |
| Landform (hillslope, terrace, etc.): Floodplain | | Local relief (concave, convex, none): flat | | Slope: 0.0% / 0.0 ° | |
| Subregion (LRR): LRR A | | Lat.: 43.7732 | | Long.: -121.5246 Datum: NAD83 | |
| Soil Map Unit Name: 144A: Sunriver sandy loam, 0 to 3 percent slopes | | | | NWI classification: R2UBH | |

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.)

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Remarks: OFF-SITE DETERMINATION | |

| Tree Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: | |
|--|-----|--|---------------------------|---|---|-----------|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: | 2 | (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: | 2 | (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: | 100.0% | (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Prevalence Index worksheet: | |
| 1. Salix exigua | 2 | <input checked="" type="checkbox"/> 100.0% | OBL | Total % Cover of: | Multiply by: | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | OBL species | 102 | x 1 = 102 |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species | 0 | x 2 = 0 |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species | 0 | x 3 = 0 |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species | 0 | x 4 = 0 |
| | 2 | = Total Cover | | UPL species | 0 | x 5 = 0 |
| | | | | Column Total s: | 102 (A) | 102 (B) |
| Herb Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Prevalence Index = B/A = 1.000 | |
| 1. Carex aquatilis | 100 | <input checked="" type="checkbox"/> 100.0% | OBL | Hydrophytic Vegetation Indicators: | | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Dominance Test is > 50% | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 100 | = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| % Bare Ground in Herb Stratum: 0 | | | | | | |
| Remarks: | | | | | | |

Western Mountains, Valleys, and Coast Region -- Interim version

Soil

Sampling Point: 35A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
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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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC SOILS BASED ON HYDROLOGY

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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): 0.25

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

SURFACE WATER ALONG WETLAND EDGE

| | | | | | |
|---|--|---|--|-----------------------------------|--|
| Project/Site: <u>DESCHUTES LWI</u> | | City/County: <u>SUNRIVER/DESCHUTES</u> | | Sampling Date: <u>24-Jun-10</u> | |
| Applicant/Owner: <u>DESCHUTES COUNTY</u> | | State: <u>OR</u> | | Sampling Point: <u>SP 36A</u> | |
| Investigator(s): <u>ALISON SIGLER, SARAH HARTUNG</u> | | Section, Township, Range: <u>S 10</u> | | <u>T 21 S</u> <u>R 10 E</u> | |
| Landform (hillslope, terrace, etc.): <u>Floodplain</u> | | Local relief (concave, convex, none): <u>flat</u> | | Slope: <u>0.0%</u> / <u>0.0</u> ° | |
| Subregion (LRR): <u>LRR A</u> | | Lat.: <u>43.7739</u> | | Long.: <u>-121.5238</u> | |
| Datum: <u>NAD83</u> | | | | | |
| Soil Map Unit Name: <u>144A: Sunriver sandy loam. 0 to 3 percent slopes</u> | | | | NW1 classification: <u>PSSC</u> | |

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.)

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Remarks: On-site determination. No digging allowed without a state cultural resource permit. | |

| Tree Stratum (Plot size:) | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|---|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: 5 (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: 5 (B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1. Salix exigua | 20 | <input checked="" type="checkbox"/> 66.7% | OBL | <div style="display: flex; justify-content: space-between;"> Total % Cover of: Multiply by: </div> |
| 2. Pinus contorta | 10 | <input checked="" type="checkbox"/> 33.3% | FAC | OBL species 60 x 1 = 60 |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species 40 x 2 = 80 |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species 30 x 3 = 90 |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species 0 x 4 = 0 |
| | 30 | = Total Cover | | UPL species 0 x 5 = 0 |
| | | | | Column Total s: 130 (A) 230 (B) |
| | | | | Prevalence Index = B/A = 1.769 |
| Herb Stratum (Plot size:) | | | | Hydrophytic Vegetation Indicators: |
| 1. Smilacina stellata | 20 | <input checked="" type="checkbox"/> 20.0% | FAC | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 2. Carex aquatilis | 40 | <input checked="" type="checkbox"/> 40.0% | OBL | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| 3. Juncus balticus | 20 | <input checked="" type="checkbox"/> 20.0% | FACW | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| 4. Poa trivialis | 10 | <input type="checkbox"/> 10.0% | FACW | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ |
| 5. Spiraea douglasii | 10 | <input type="checkbox"/> 10.0% | FACW | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 100 | = Total Cover | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size:) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: | | | | |
| Remarks: | | | | |

Western Mountains, Valleys, and Coast Region -- Interim version

Soil

Sampling Point: 36A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
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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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC BASED ON HYDROLOGY

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 24-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 37A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 10 T 21 S R 10 E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.7746 Long.: -121.5260 Datum: NAD83
 Soil Map Unit Name: 144A: Sunriver sandy loam, 0 to 3 percent slopes NWI classification: PFOC/PEMC

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
|--|------------------|--|-------------------|------------------|---|
| 1. <u>Pinus contorta</u> | <u>20</u> | <input checked="" type="checkbox"/> 100.0% | | <u>FAC</u> | |
| 2. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | | Prevalence Index worksheet: Total % Cover of: <u>10</u> Multiply by: OBL species <u>10</u> x 1 = <u>10</u> FACW species <u>100</u> x 2 = <u>200</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>130</u> (A) <u>270</u> (B) Prevalence Index = B/A = <u>2.077</u> |
| 1. <u>Salix exigua</u> | <u>10</u> | <input checked="" type="checkbox"/> 100.0% | | <u>OBL</u> | |
| 2. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 5. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1. <u>Carex sp.</u> | <u>80</u> | <input checked="" type="checkbox"/> 80.0% | | <u>FACW</u> | |
| 2. <u>Juncus balticus</u> | <u>20</u> | <input checked="" type="checkbox"/> 20.0% | | <u>FACW</u> | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 5. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 6. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 7. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 8. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 9. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 10. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 11. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 2. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | | |
| Remarks: Carex sp. assumed to be FACW. | | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 37A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
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| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC BASED ON HYDROLOGY

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 24-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 38A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 9 T 21 S R 10 E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.7755 Long.: -121.5301 Datum: NAD83
 Soil Map Unit Name: 114C: Shanahan loamy coarse sand, 0 to 15 percent slopes NWI classification: PFOA

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: On-site determination. No digging allowed without a state cultural resource permit. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
|--|------------------|--|-------------------|------------------|---|
| 1. Pinus contorta | 2 | <input checked="" type="checkbox"/> 100.0% | | FAC | |
| 2. | 0 | <input type="checkbox"/> 0.0% | | | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | | |
| 4. | 0 | <input type="checkbox"/> 0.0% | | | |
| 2 = Total Cover | | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | | Prevalence Index worksheet: Total % Cover of: <u>50</u> Multiply by: <u>x 1 = 50</u> OBL species <u>50</u> x 1 = <u>50</u> FACW species <u>90</u> x 2 = <u>180</u> FAC species <u>22</u> x 3 = <u>66</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Total s: <u>162</u> (A) <u>296</u> (B) Prevalence Index = B/A = <u>1.827</u> |
| 1. Alnus incana | 10 | <input type="checkbox"/> 16.7% | | FACW | |
| 2. Salix exigua | 50 | <input checked="" type="checkbox"/> 83.3% | | OBL | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | | |
| 4. | 0 | <input type="checkbox"/> 0.0% | | | |
| 5. | 0 | <input type="checkbox"/> 0.0% | | | |
| 60 = Total Cover | | | | | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1. Carex sp. | 70 | <input checked="" type="checkbox"/> 70.0% | | FACW | |
| 2. Equisetum arvense | 5 | <input type="checkbox"/> 5.0% | | FAC | |
| 3. Rumex uncinatus | 10 | <input type="checkbox"/> 10.0% | | FACW | |
| 4. Poa sp. | 15 | <input type="checkbox"/> 15.0% | | FAC | |
| 5. | 0 | <input type="checkbox"/> 0.0% | | | |
| 6. | 0 | <input type="checkbox"/> 0.0% | | | |
| 7. | 0 | <input type="checkbox"/> 0.0% | | | |
| 8. | 0 | <input type="checkbox"/> 0.0% | | | |
| 9. | 0 | <input type="checkbox"/> 0.0% | | | |
| 10. | 0 | <input type="checkbox"/> 0.0% | | | |
| 11. | 0 | <input type="checkbox"/> 0.0% | | | |
| 100 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. | 0 | <input type="checkbox"/> 0.0% | | | |
| 2. | 0 | <input type="checkbox"/> 0.0% | | | |
| 0 = Total Cover | | | | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | | |
| Remarks: Carex sp. assumed FACW. Poa sp. assumed FAC. | | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 38A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
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| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC SOILS BASED ON HYDROLOGY

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☐ No ☒Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 24-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 39A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 9 T 21 S R 10 E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.7752 Long.: -121.5299 Datum: NAD83
 Soil Map Unit Name: 144A: Sunriver sandy loam, 0 to 3 percent slopes NWI classification: PSSC/PFOA

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
|--|------------------|--|-------------------|------------------|---|
| 1. <u>Pinus contorta</u> | <u>5</u> | <input checked="" type="checkbox"/> 100.0% | | <u>FAC</u> | |
| 2. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | | |
| 1. <u>Alnus incana</u> | <u>10</u> | <input type="checkbox"/> 16.7% | | <u>FACW</u> | |
| 2. <u>Salix exigua</u> | <u>50</u> | <input checked="" type="checkbox"/> 83.3% | | <u>OBL</u> | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 5. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | | |
| 1. <u>Carex aquatilis</u> | <u>80</u> | <input checked="" type="checkbox"/> 80.0% | | <u>OBL</u> | |
| 2. <u>Juncus balticus</u> | <u>20</u> | <input checked="" type="checkbox"/> 20.0% | | <u>FACW</u> | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 5. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 6. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 7. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 8. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 9. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 10. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 11. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | | |
| 1. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| 2. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | | |

Prevalence Index worksheet:
 Total % Cover of: 130 Multiply by: 130
OBL species 130 x **1** = 130
FACW species 30 x **2** = 60
FAC species 5 x **3** = 15
FACU species 0 x **4** = 0
UPL species 0 x **5** = 0
Column Totals: 165 (A) 205 (B)
 Prevalence Index = B/A = 1.242

Hydrophytic Vegetation Indicators:
☒ 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 ☐

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 39A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
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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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC SOILS BASED ON HYDROLOGY

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

SURFACE WATER ALONG WETLAND EDGE

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 24-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 40A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 3 T 21 S R 10 E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.7772 Long.: -121.5142 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMC/PSSC

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|---|------------------|---|
| 1. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 2. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: Total % Cover of: <u>120</u> Multiply by: OBL species <u>120</u> x 1 = <u>120</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>21</u> x 3 = <u>63</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>151</u> (A) <u>203</u> (B) Prevalence Index = B/A = <u>1.344</u> |
| 1. <u>Alnus incana</u> | 10 | <input type="checkbox"/> 19.6% | FACW | |
| 2. <u>Pinus contorta</u> | 1 | <input type="checkbox"/> 2.0% | FAC | |
| 3. <u>Salix exigua</u> | 40 | <input checked="" type="checkbox"/> 78.4% | OBL | |
| 4. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 5. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 51 = Total Cover | | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1. <u>Carex aquatilis</u> | 80 | <input checked="" type="checkbox"/> 80.0% | OBL | |
| 2. <u>Poa sp.</u> | 20 | <input checked="" type="checkbox"/> 20.0% | FAC | |
| 3. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 5. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 6. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 7. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 8. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 9. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 10. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 11. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 100 = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| 2. <u> </u> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |
| Remarks: Poa sp. assumed FAC. | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 40A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
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| | | | | | | | | |

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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

SOILS ASSUMED HYDRIC BY SATURATION

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

SATURATION SEEN WITH BINOCULARS

| | | | | | |
|--|--|---|--|------------------------------------|--|
| Project/Site: DESCHUTES LWI | | City/County: SUNRIVER/DESCHUTES | | Sampling Date: 24-Jun-10 | |
| Applicant/Owner: DESCHUTES COUNTY | | State: OR | | Sampling Point: SP 41A | |
| Investigator(s): ALISON SIGLER, SARAH HARTUNG | | Section, Township, Range: S 3 T 21 S R 10 E | | | |
| Landform (hillslope, terrace, etc.): Floodplain | | Local relief (concave, convex, none): flat | | Slope: 0.0% / 0.0 ° | |
| Subregion (LRR): LRR A | | Lat.: 43.7834 | | Long.: -121.5141 Datum: NAD83 | |
| Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes | | | | NWI classification: PEMA/PSSC/PFOA | |

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.)

| | | | | | |
|------------------------------------|--------------------------------------|--------------------------|--|--------------------------------------|--------------------------|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> | No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Remarks: OFF-SITE DETERMINATION | | | | | |

| Tree Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: | |
|--|-----|---|---------------------------|---|--------------------------------------|--------------------------|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: | 4 | (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: | 4 | (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: | 100.0% | (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Prevalence Index worksheet: | |
| 1. <i>Alnus incana</i> | 10 | <input checked="" type="checkbox"/> 25.0% | FACW | Total % Cover of: | Multiply by: | |
| 2. <i>Salix exigua</i> | 30 | <input checked="" type="checkbox"/> 75.0% | OBL | OBL species | 110 | x 1 = 110 |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species | 10 | x 2 = 20 |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species | 20 | x 3 = 60 |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species | 0 | x 4 = 0 |
| | 40 | = Total Cover | | UPL species | 0 | x 5 = 0 |
| | | | | Column Total s: | 140 | (A) 190 (B) |
| | | | | Prevalence Index = B/A = 1.357 | | |
| Herb Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Hydrophytic Vegetation Indicators: | |
| 1. <i>Carex aquatilis</i> | 80 | <input checked="" type="checkbox"/> 80.0% | OBL | <input checked="" type="checkbox"/> Dominance Test is > 50% | | |
| 2. <i>Poa</i> sp. | 20 | <input checked="" type="checkbox"/> 20.0% | FAC | <input checked="" type="checkbox"/> Prevalence Index is $\leq 3.0^1$ | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ | | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 100 | = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Hydrophytic Vegetation Present? | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | Yes <input checked="" type="radio"/> | No <input type="radio"/> |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| % Bare Ground in Herb Stratum: 0 | | | | | | |
| Remarks: <i>Poa</i> sp. assumed FAC. | | | | | | |

Western Mountains, Valleys, and Coast Region -- Interim version

Soil

Sampling Point: 41A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
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| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

SOILS ASSUMED HYDRIC BY SATURATION

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Aerial photo

Remarks:

SATURATION SEEN WITH BINOCULARS

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 24-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 42A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 35 T 20 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): concave Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.8046 Long.: -121.4956 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMA

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|--|------------------|--|
| 1. Pinus contorta | 50 | <input checked="" type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>4</u> (B) |
| 3. | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B) |
| 4. | 0 | <input type="checkbox"/> 0.0% | | |
| 50 = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. Rosa gymnocarpa | 0 | <input type="checkbox"/> 0.0% | FACU | Total % Cover of: Multiply by: |
| 2. Salix exigua | 20 | <input checked="" type="checkbox"/> 100.0% | OBL | OBL species <u>20</u> x 1 = <u>20</u> |
| 3. | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>0</u> x 2 = <u>0</u> |
| 4. | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>60</u> x 3 = <u>180</u> |
| 5. | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>5</u> x 4 = <u>20</u> |
| 20 = Total Cover | | | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Col umn Total s: <u>85</u> (A) <u>220</u> (B) |
| 1. Fragaria virginiana | 5 | <input checked="" type="checkbox"/> 33.3% | FACU | Prevalence Index = B/A = <u>2.588</u> |
| 2. Trifolium repens | 10 | <input checked="" type="checkbox"/> 66.7% | FAC | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | |
| 4. | 0 | <input type="checkbox"/> 0.0% | | |
| 5. | 0 | <input type="checkbox"/> 0.0% | | |
| 6. | 0 | <input type="checkbox"/> 0.0% | | |
| 7. | 0 | <input type="checkbox"/> 0.0% | | |
| 8. | 0 | <input type="checkbox"/> 0.0% | | |
| 9. | 0 | <input type="checkbox"/> 0.0% | | |
| 10. | 0 | <input type="checkbox"/> 0.0% | | |
| 11. | 0 | <input type="checkbox"/> 0.0% | | |
| 15 = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. | 0 | <input type="checkbox"/> 0.0% | | |
| 2. | 0 | <input type="checkbox"/> 0.0% | | |
| 0 = Total Cover | | | | |
| % Bare Ground in Herb Stratum: <u>85</u> | | | | |

Hydrophytic Vegetation Indicators:
☒ Dominance Test is > 50%
☒ Prevalence Index is $\leq 3.0^1$
☐ 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 ☐

Remarks:
 "Bare ground" was duff/leaf litter.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 42A

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

| Depth (inches) | Matrix | | Redox Features | | | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|------|-------------------|------------------|---|---|------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | | | |
| 0-3 | 10YR | 3/2 | 100% | | | | | | Loam | |
| 3-6 | 10YR | 5/1 | 90% | 10YR | 3/4 | 10% | C | M | Loam | |
| 6-8 | 10YR | 8/2 | 80% | 10YR | 5/6 | 20% | C | M | Clay Loam | |
| 8-20 | 10YR | 7/2 | 60% | 10YR | 5/6 | 40% | C | M | Loamy Sand | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

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.)

- | | |
|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☐ 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 ☒ No ☐

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☐ No ☒

Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

LANDOWNER SAYS AREA IS SATURATED EARLIER IN SPRING AND SURFACE WATER IS PRESENT WHEN SNOWFALL IS GREATER. AREA HAS BEEN GETTING DRIER DUE TO LODGEPOLE PINE GROWTH AND PROLIFERATION.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 25-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 43A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 35 T 20 S R 10 E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.7995 Long.: -121.5009 Datum: NAD83
 Soil Map Unit Name: Not available 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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
|--|------------------|------------------------------------|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>130</u> x 1 = <u>130</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>5</u> x 4 = <u>20</u> UPL species <u>0</u> x 5 = <u>0</u> Col umn Total s: <u>165</u> (A) <u>210</u> (B) Prevalence Index = B/A = <u>1.273</u> |
| 70 = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) 1. <u>Salix exigua</u> 60 <input checked="" type="checkbox"/> 85.7% OBL 2. <u>Alnus incana</u> 10 <input type="checkbox"/> 14.3% FACW 3. _____ 0 <input type="checkbox"/> 0.0% 4. _____ 0 <input type="checkbox"/> 0.0% 5. _____ 0 <input type="checkbox"/> 0.0% | | | | |
| 70 = Total Cover | | | | |
| Herb Stratum (Plot size: <input type="text"/>) 1. <u>Carex aquatilis</u> 70 <input checked="" type="checkbox"/> 73.7% OBL 2. <u>Juncus sp.</u> 15 <input type="checkbox"/> 15.8% FACW 3. <u>Taraxacum officinale</u> 5 <input type="checkbox"/> 5.3% FACU 4. <u>Ranunculus sp.</u> 5 <input type="checkbox"/> 5.3% FACW 5. _____ 0 <input type="checkbox"/> 0.0% 6. _____ 0 <input type="checkbox"/> 0.0% 7. _____ 0 <input type="checkbox"/> 0.0% 8. _____ 0 <input type="checkbox"/> 0.0% 9. _____ 0 <input type="checkbox"/> 0.0% 10. _____ 0 <input type="checkbox"/> 0.0% 11. _____ 0 <input type="checkbox"/> 0.0% = Total Cover 95 | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) 1. _____ 0 <input type="checkbox"/> 0.0% 2. _____ 0 <input type="checkbox"/> 0.0% = Total Cover 0 | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |
| Remarks: Juncus sp. and Ranunculus sp. assumed FACW. | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 43A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

SOILS ASSUMED HYDRIC BY SATURATION

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Aerial photo

Remarks:

SATURATION SEEN WITH BINOCULARS

| | | | | | |
|--|--|---|--|-----------------------------------|--|
| Project/Site: <u>DESCHUTES LWI</u> | | City/County: <u>SUNRIVER/DESCHUTES</u> | | Sampling Date: <u>25-Jun-10</u> | |
| Applicant/Owner: <u>DESCHUTES COUNTY</u> | | State: <u>OR</u> | | Sampling Point: <u>SP 45A</u> | |
| Investigator(s): <u>ALISON SIGLER, SARAH HARTUNG</u> | | Section, Township, Range: <u>S 26</u> <u>T 20 S</u> <u>R 10 E</u> | | | |
| Landform (hillslope, terrace, etc.): <u>Floodplain</u> | | Local relief (concave, convex, none): <u>concave</u> | | Slope: <u>0.0%</u> / <u>0.0</u> ° | |
| Subregion (LRR): <u>LRR A</u> | | Lat.: <u>43.8094</u> | | Long.: <u>-121.4946</u> | |
| | | Datum: <u>NAD83</u> | | | |
| Soil Map Unit Name: <u>Not available</u> | | | | NWI classification: <u>PSSC</u> | |

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.)

| | | | | | |
|------------------------------------|--------------------------------------|--------------------------|--|--------------------------------------|--------------------------|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> | No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Remarks: OFF-SITE DETERMINATION | | | | | |

| Tree Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: | |
|--|----|---|---------------------------|---|--------------------------------------|--------------------------|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: | 3 | (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: | 3 | (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: | 100.0% | (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Prevalence Index worksheet: | |
| 1. <i>Alnus incana</i> | 5 | <input checked="" type="checkbox"/> 25.0% | FACW | Total % Cover of: | Multiply by: | |
| 2. <i>Salix exigua</i> | 15 | <input checked="" type="checkbox"/> 75.0% | OBL | OBL species | 15 | x 1 = 15 |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species | 90 | x 2 = 180 |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species | 0 | x 3 = 0 |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species | 0 | x 4 = 0 |
| | 20 | = Total Cover | | UPL species | 0 | x 5 = 0 |
| | | | | Column Total s: | 105 | (A) 195 (B) |
| | | | | Prevalence Index = B/A = 1.857 | | |
| Herb Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Hydrophytic Vegetation Indicators: | |
| 1. <i>Carex</i> sp. | 75 | <input checked="" type="checkbox"/> 88.2% | FACW | <input checked="" type="checkbox"/> Dominance Test is > 50% | | |
| 2. <i>Phalaris arundinacea</i> | 10 | <input type="checkbox"/> 11.8% | FACW | <input checked="" type="checkbox"/> Prevalence Index is $\leq 3.0^1$ | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ | | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 85 | = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Hydrophytic Vegetation Present? | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | Yes <input checked="" type="radio"/> | No <input type="radio"/> |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| % Bare Ground in Herb Stratum: 0 | | | | | | |
| Remarks: Carex sp. assumed to be FACW. | | | | | | |

Western Mountains, Valleys, and Coast Region -- Interim version

Soil

Sampling Point: 45A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

SOILS ASSUMED HYDRIC BY SATURATION

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 25-Jun-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 46A
 Investigator(s): ALISON SIGLER, SARAH HARTUNG Section, Township, Range: S 26 T 20 S R 10 E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.8094 Long.: -121.4946 Datum: NAD83
 Soil Map Unit Name: Not available NWI classification: PEMC

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|---|------------------|---|------------------|--|
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | Prevalence Index worksheet: Total % Cover of: <u>0</u> Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>75</u> x 2 = <u>150</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Total s: <u>85</u> (A) <u>180</u> (B) Prevalence Index = B/A = <u>2.118</u> |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | | 0 = Total Cover | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | |
| 1. Carex sp. | 65 | <input checked="" type="checkbox"/> 76.5% | FACW | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 2. Poa sp. | 10 | <input type="checkbox"/> 11.8% | FAC | |
| 3. Juncus sp. | 10 | <input type="checkbox"/> 11.8% | FACW | |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 5. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 6. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 7. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 8. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 9. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 10. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 11. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 85 = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |
| Remarks: Carex sp. and Juncus sp. assumed to be FACW. Poa sp. assumed FAC. | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: 46A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
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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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☒ 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 ☒ No ☐

Remarks:

SOILS ASSUMED HYDRIC BY SATURATION

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Aerial photo

Remarks:

SATURATION SEEN WITH BINOCULARS

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 09-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 47A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 15 T 22 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 1.0% / 0.6 °
 Subregion (LRR): LRR A Lat.: 43.6603 Long.: -121.5117 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMC

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION, SOIL PIT EXCAVATED IN THE ROAD RIGHT-OF-WAY AND REPRESENTS SITE CONDITIONS. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|---|------------------|---|
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Total % Cover of: <u>0</u> Multiply by: <u>1</u> |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | OBL species <u>0</u> x 1 = <u>0</u> |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>0</u> x 2 = <u>0</u> |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>100</u> x 3 = <u>300</u> |
| 5. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 0 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Col umn Total s: <u>100</u> (A) <u>300</u> (B) |
| 1. Rumex crispus | 10 | <input type="checkbox"/> 10.0% | FAC | Prevalence Index = B/A = <u>3.000</u> |
| 2. Hordeum jubatum | 10 | <input type="checkbox"/> 10.0% | FAC | |
| 3. Elymus cinereus | 80 | <input checked="" type="checkbox"/> 80.0% | FAC | |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 5. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 6. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 7. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 8. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 9. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 10. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 11. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |
| Remarks: | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: SP 47A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-6 | 10YR | 3/2 | 100% | | | | Silt Loam | root mass |
| 6-18 | 10YR | 3/2 | 100% | | | | Silty Clay Loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |

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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC SOILS BASED ON PRIMARY WETLAND INDICATOR AND HYDROPHYTIC VEGETATION.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☐ No ☒Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WATER MARKS ON VEGETATION

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 10-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 49A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 27 T 22 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0%
 Subregion (LRR): LRR A Lat.: 43.6326 Long.: -121.5146 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMF

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION, SOIL PIT EXCAVATED IN THE ROAD RIGHT-OF-WAY AND REPRESENTS SITE CONDITIONS. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------------------|------------------|---|
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| | | | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| | | | | Prevalence Index worksheet: |
| | | | | Total % Cover of: <u>0</u> Multiply by: <u>1</u> |
| | | | | OBL species <u>0</u> x 1 = <u>0</u> |
| | | | | FACW species <u>0</u> x 2 = <u>0</u> |
| | | | | FAC species <u>100</u> x 3 = <u>300</u> |
| | | | | FACU species <u>0</u> x 4 = <u>0</u> |
| | | | | UPL species <u>0</u> x 5 = <u>0</u> |
| | | | | Column Totals: <u>100</u> (A) <u>300</u> (B) |
| | | | | Prevalence Index = B/A = <u>3.000</u> |
| | | | | Hydrophytic Vegetation Indicators: |
| | | | | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| | | | | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| | | | | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ |
| | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Remarks: | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: **SP 49A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-8 | 10YR | 3/1 | 100% | | | | Silt Loam | |
| 8-12 | 10YR | 3/2 | 100% | | | | Silty Clay Loam | |
| 12-18 | 10YR | 3/2 | 100% | | | | Silty Clay Loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUME HYDRIC SOILS BASED ON WETLAND HYDROLOGY AND HYDROPHYTIC VEGETATION.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WATER IN CHANNELS

| | | | | | |
|---|--|---|--|---|--|
| Project/Site: <u>DESCHUTES LWI</u> | | City/County: <u>SUNRIVER/DESCHUTES</u> | | Sampling Date: <u>10-Aug-10</u> | |
| Applicant/Owner: <u>DESCHUTES COUNTY</u> | | State: <u>OR</u> | | Sampling Point: <u>SP 50A</u> | |
| Investigator(s): <u>Alessandra Capretti</u> | | Section, Township, Range: <u>S 27</u> | | <u>T 22 S</u> <u>R 10 E</u> | |
| Landform (hillslope, terrace, etc.): <u>Valley bottom</u> | | Local relief (concave, convex, none): <u>flat</u> | | Slope: <u>1.0%</u> / <u>0.6</u> ° | |
| Subregion (LRR): <u>LRR A</u> | | Lat.: <u>43.6436</u> | | Long.: <u>-121.5201</u> Datum: <u>NAD83</u> | |
| Soil Map Unit Name: <u>29A: Crvaquolls, 0 to 3 percent slopes</u> | | | | NWI classification: <u>PEMA</u> | |

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.)

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Remarks: Two 8 inch culverts under highway and running water. Soil disturbed from road construction and past filling events. | |

| Tree Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: | |
|--|----|--|---------------------------|---|--------------------------------------|--------------------------|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: | 3 | (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: | 3 | (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: | 100.0% | (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Prevalence Index worksheet: | |
| 1. Salix geyeriana | 5 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: | Multiply by: | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | OBL species | 0 | x 1 = 0 |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species | 60 | x 2 = 120 |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species | 20 | x 3 = 60 |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species | 10 | x 4 = 40 |
| | 5 | = Total Cover | | UPL species | 10 | x 5 = 50 |
| | | | | Column Total s: | 100 | (A) 270 (B) |
| | | | | Prevalence Index = B/A = 2.700 | | |
| Herb Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Hydrophytic Vegetation Indicators: | |
| 1. Juncus effusus | 40 | <input checked="" type="checkbox"/> 42.1% | FACW | <input checked="" type="checkbox"/> Dominance Test is > 50% | | |
| 2. Equisetum hyemale | 15 | <input type="checkbox"/> 15.8% | FACW | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | |
| 3. Daucus carota | 10 | <input type="checkbox"/> 10.5% | UPL | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | |
| 4. Elymus cinereus | 20 | <input checked="" type="checkbox"/> 21.1% | FAC | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ | | |
| 5. Festuca idahoensis | 10 | <input type="checkbox"/> 10.5% | FACU | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 95 | = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | Hydrophytic Vegetation Present? | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | Yes <input checked="" type="radio"/> | No <input type="radio"/> |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | | | |
| | 0 | = Total Cover | | | | |
| % Bare Ground in Herb Stratum: 5 | | | | | | |
| Remarks: | | | | | | |

Western Mountains, Valleys, and Coast Region -- Interim version

Soil

Sampling Point: **SP 50A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------|------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-18 | 10YR | 3/3 | 100% | | | | Silt Loam | mostly road fill |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

Assume hydric soils based on wetland hydrology.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WATER IN ROAD SIDE DITCH. DITCH RECEIVES OVERLAND FLOW/RUNOFF FROM ROAD.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 10-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 51A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 27 T 22 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 1.0% / 0.6 °
 Subregion (LRR): LRR A Lat.: 43.6434 Long.: -121.5204 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMA

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION, SOIL PIT EXCAVATED IN THE ROAD RIGHT-OF-WAY TO REPRESENT NON-WETLAND CONDITIONS SOUTHWEST OF ROADWAY. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|--|----------------------|---|
| 1. <u>Pinus contorta</u> | <u>20</u> | <input checked="" type="checkbox"/> 25.0% | <u>FAC</u> | Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>80.0%</u> (A/B) |
| 2. <u>Salix geyeriana</u> | <u>60</u> | <input checked="" type="checkbox"/> 75.0% | <u>FACW</u> | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| | | <u>80</u> | = Total Cover | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: Total % Cover of: <u>0</u> Multiply by: <u>1</u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>65</u> x 2 = <u>130</u> FAC species <u>22</u> x 3 = <u>66</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>102</u> (A) <u>256</u> (B) Prevalence Index = B/A = <u>2.510</u> |
| 1. <u>Salix geyeriana</u> | <u>5</u> | <input checked="" type="checkbox"/> 71.4% | <u>FACW</u> | |
| 2. <u>Pinus contorta</u> | <u>2</u> | <input checked="" type="checkbox"/> 28.6% | <u>FAC</u> | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 5. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| | | <u>7</u> | = Total Cover | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1. <u>Festuca idahoensis</u> | <u>15</u> | <input checked="" type="checkbox"/> 100.0% | <u>FACU</u> | |
| 2. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 3. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 4. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 5. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 6. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 7. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 8. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 9. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 10. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 11. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| | | <u>15</u> | = Total Cover | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| 2. <u></u> | <u>0</u> | <input type="checkbox"/> 0.0% | <u></u> | |
| | | <u>0</u> | = Total Cover | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: **SP 51A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------|---------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-3 | 10YR | 3/3 | 100% | | | | Silt Loam | with gravel s |
| 3-18 | 10YR | 3/3 | 100% | | | | Silt Loam | with gravel s |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 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 ☐ No ☒

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒Depth (inches): Water Table Present? Yes ☐ No ☒Depth (inches): Saturation Present?
(includes capillary fringe) Yes ☐ No ☒Depth (inches): **Wetland Hydrology Present?** Yes ☐ No ☒

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

Remarks:

| | | | | | |
|---|--|---|--|---|--|
| Project/Site: <u>DESCHUTES LWI</u> | | City/County: <u>SUNRIVER/DESCHUTES</u> | | Sampling Date: <u>10-Aug-10</u> | |
| Applicant/Owner: <u>DESCHUTES COUNTY</u> | | State: <u>OR</u> | | Sampling Point: <u>SP 52A</u> | |
| Investigator(s): <u>Alessandra Capretti</u> | | Section, Township, Range: <u>S 27</u> | | <u>T 22 S</u> <u>R 10 E</u> | |
| Landform (hillslope, terrace, etc.): <u>Valley bottom</u> | | Local relief (concave, convex, none): <u>flat</u> | | Slope: <u>1.0%</u> / <u>0.6</u> ° | |
| Subregion (LRR): <u>LRR A</u> | | Lat.: <u>43.6354</u> | | Long.: <u>-121.5161</u> Datum: <u>NAD83</u> | |
| Soil Map Unit Name: <u>29A: Crvaquolls, 0 to 3 percent slopes</u> | | | | NW1 classification: <u>PABF_x</u> | |

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.)

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Remarks: OFF-SITE DETERMINATION, SOIL PIT EXCAVATED IN ROAD RIGHT-OF-WAY. | |

| Tree Stratum (Plot size:) | Absolute % Cover | Species? Rel.Strat. Cover | Indicator Status | |
|---|------------------|--|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | | 0 | = Total Cover | |
| Sapling/Shrub Stratum (Plot size:) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | | 0 | = Total Cover | |
| Herb Stratum (Plot size:) | | | | |
| 1. <i>Festuca idahoensis</i> | 100 | <input checked="" type="checkbox"/> 100.0% | FACU | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | | 100 | = Total Cover | |
| Woody Vine Stratum (Plot size:) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | | 0 | = Total Cover | |
| % Bare Ground in Herb Stratum: 0 | | | | |

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

| | | | | | |
|--------------------------|-----|--------------|-------|--|-----|
| Total % Cover of: | | Multiply by: | | | |
| OBL species | 0 | x 1 = | 0 | | |
| FACW species | 0 | x 2 = | 0 | | |
| FAC species | 0 | x 3 = | 0 | | |
| FACU species | 100 | x 4 = | 400 | | |
| UPL species | 0 | x 5 = | 0 | | |
| Column Total s: | 100 | (A) | 400 | | (B) |
| Prevalence Index = B/A = | | | 4.000 | | |

Hydrophytic Vegetation Indicators:

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ 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 ☒

Remarks:

Pasture with horse and cattle grazing. Assessment area also looks like it is used as a hay crop.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: **SP 52A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-4 | 10YR | 3/2 | 100% | | | | Silt Loam | root mass |
| 4-18 | 10YR | 3/2 | 100% | | | | Silt Loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC BASED ON HYDROLOGY.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WATER IS DITCHED AND MOST LIKELY PIPED/DITCHED IN MOST PARTS OF THE ASSESSMENT AREA.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 10-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 53A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 27 T 22 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.6343 Long.: -121.5156 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMC

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION, SOIL PIT EXCAVATED IN THE ROAD RIGHT-OF-WAY AND REPRESENTS SITE CONDITIONS. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B) |
|---|------------------|------------------------------------|------------------|--|
| 1. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 2. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 0 = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: <u>0</u> Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>50</u> x 2 = <u>100</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>20</u> x 4 = <u>80</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>90</u> (A) <u>240</u> (B) Prevalence Index = B/A = <u>2.667</u> |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) 1. <u></u> 0 <input type="checkbox"/> 0.0% 2. <u></u> 0 <input type="checkbox"/> 0.0% 3. <u></u> 0 <input type="checkbox"/> 0.0% 4. <u></u> 0 <input type="checkbox"/> 0.0% 5. <u></u> 0 <input type="checkbox"/> 0.0% 0 = Total Cover | | | | |
| Herb Stratum (Plot size: <input type="text"/>) 1. <u>Juncus effusus</u> 50 <input checked="" type="checkbox"/> 55.6% FACW 2. <u>Festuca idahoensis</u> 20 <input checked="" type="checkbox"/> 22.2% FACU 3. <u>Elymus cinereus</u> 20 <input checked="" type="checkbox"/> 22.2% FAC 4. <u></u> 0 <input type="checkbox"/> 0.0% 5. <u></u> 0 <input type="checkbox"/> 0.0% 6. <u></u> 0 <input type="checkbox"/> 0.0% 7. <u></u> 0 <input type="checkbox"/> 0.0% 8. <u></u> 0 <input type="checkbox"/> 0.0% 9. <u></u> 0 <input type="checkbox"/> 0.0% 10. <u></u> 0 <input type="checkbox"/> 0.0% 11. <u></u> 0 <input type="checkbox"/> 0.0% 90 = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) 1. <u></u> 0 <input type="checkbox"/> 0.0% 2. <u></u> 0 <input type="checkbox"/> 0.0% 0 = Total Cover | | | | |
| % Bare Ground in Herb Stratum: <u>10</u> | | | | |
| Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | |
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | | | | |
| Remarks: | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: **SP 53A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------|---------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-4 | 10YR | 3/1 | 100% | | | | Silt Loam | roots |
| 4-18 | 10YR | 3/1 | 100% | | | | Silt Loam | with gravel s |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC SOILS BASED ON WETLAND HYDROLOGY INDICATORS AND HYDROPHYTIC VEGETATION.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 10-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 54A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 27 T 22 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 1.0% / 0.6 °
 Subregion (LRR): LRR A Lat.: 43.6333 Long.: -121.5151 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMF

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION, SOIL PIT EXCAVATED IN THE ROAD RIGHT-OF-WAY AND REPRESENTS SITE CONDITIONS. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|---|------------------|--|
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | Prevalence Index worksheet: Total % Cover of: <u>0</u> Multiply by: <u>1</u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>100</u> x 3 = <u>300</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>300</u> (B) Prevalence Index = B/A = <u>3.000</u> |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | | 0 = Total Cover | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | |
| 1. Rumex crispus | 10 | <input type="checkbox"/> 10.0% | FAC | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 2. Hordeum jubatum | 20 | <input checked="" type="checkbox"/> 20.0% | FAC | |
| 3. Elymus cinereus | 70 | <input checked="" type="checkbox"/> 70.0% | FAC | |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 5. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 6. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 7. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 8. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 9. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 10. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 11. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 100 = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |
| Remarks: Active grazing. | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: SP 54A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------------|---------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-8 | 10YR | 3/1 | 100% | | | | Silt Loam | |
| 8-12 | 10YR | 3/2 | 100% | | | | Silty Clay Loam | |
| 12-18 | 10YR | 3/2 | 100% | | | | Silty Clay Loam | WI TH COBBLES |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ 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 ☒ No ☐

Remarks:

ASSUMED HYDRIC BASED ON WETLAND HYDROLOGY INDICATORS AND HYDROPHYTIC VEGETATION.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Surface water present within 2 feet of soil pit.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 10-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 55A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 34 T 22 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 1.0% / 0.6 °
 Subregion (LRR): LRR A Lat.: 43.6290 Long.: -121.5129 Datum: NAD83
 Soil Map Unit Name: 115A: Shanahan loamy coarse sand, low, 0 to 3 percent slopes NWI classification: PEMA

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION. AGGRESSIVE DOGS NEARBY MADE IT DIFFICULT TO ASSESS SAMPLE PLOT. LODGEPOLE PINES FORMED A DENSE PATCH. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|--|------------------|---|
| 1. <u>Pinus contorta</u> | <u>20</u> | <input checked="" type="checkbox"/> 100.0% | <u>FAC</u> | Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| 3. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 4. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | |
| | <u>20</u> | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | OBL species <u>0</u> x 1 = <u>0</u> |
| 3. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | FACW species <u>0</u> x 2 = <u>0</u> |
| 4. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | FAC species <u>20</u> x 3 = <u>60</u> |
| 5. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | FACU species <u>0</u> x 4 = <u>0</u> |
| | <u>0</u> | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Total s: <u>20</u> (A) <u>60</u> (B) |
| 1. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | Prevalence Index = B/A = <u>3.000</u> |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | Hydrophytic Vegetation Indicators: |
| 3. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 4. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| 5. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| 6. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ |
| 7. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 8. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 9. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | |
| | <u>0</u> | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | _____ | |
| | <u>0</u> | = Total Cover | | |
| % Bare Ground in Herb Stratum: <u>100</u> | | | | |
| Remarks: 100% LEAF LITTER. | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: **SP 55A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐
- 2 cm Muck (A10)
-
- ☐
- Red Parent Material (TF2)
-
- ☐
- 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 ☐ No ☒

Remarks:

NO PIT DUG IN THE RIGHT OF WAY, ANGRY DOGS NEARBY.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☐ No ☒Depth (inches): **Wetland Hydrology Present?** Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 10-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 56A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 34 T 22 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 1.0% / 0.6 °
 Subregion (LRR): LRR A Lat.: 43.6286 Long.: -121.5127 Datum: NAD83
 Soil Map Unit Name: 115A: Shanahan loamy coarse sand, low, 0 to 3 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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION, LIMITED PUBLIC VIEWING ACCESS. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|---|------------------|--|------------------|---|
| 1. <u>Pinus contorta</u> | 15 | <input checked="" type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | | | | Prevalence Index worksheet: |
| | | | | Total % Cover of: <u>15</u> Multiply by: _____ |
| | | | | OBL species <u>0</u> x 1 = <u>0</u> |
| | | | | FACW species <u>0</u> x 2 = <u>0</u> |
| | | | | FAC species <u>15</u> x 3 = <u>45</u> |
| | | | | FACU species <u>0</u> x 4 = <u>0</u> |
| | | | | UPL species <u>0</u> x 5 = <u>0</u> |
| | | | | Column Total s: <u>15</u> (A) <u>45</u> (B) |
| | | | | Prevalence Index = B/A = <u>3.000</u> |
| | | | | Hydrophytic Vegetation Indicators: |
| | | | | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| | | | | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| | | | | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ |
| | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |

| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status |
|--|------------------|-------------------------------|------------------|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 0 = Total Cover | | | |

| Herb Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status |
|---|------------------|-------------------------------|------------------|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 0 = Total Cover | | | |

| Woody Vine Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status |
|---|------------------|-------------------------------|------------------|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | |
| 0 = Total Cover | | | |

% Bare Ground in Herb Stratum: 0

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: **SP 56A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ 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 ☐ No ☒

Remarks:

LIMITED ACCESS, COULD NOT DIG PIT IN RIGHT OF WAY

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☐ No ☒

Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 10-Aug-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 57A
 Investigator(s): Alessandra Capretti Section, Township, Range: S 14 T 21 S R 10 E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope: 3.0% / 1.7 °
 Subregion (LRR): LRR A Lat.: 43.7488 Long.: -121.4997 Datum: NAD83
 Soil Map Unit Name: 115A: Shanahan loamy coarse sand, low, 0 to 3 percent slopes NWI classification: PEMA

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Remarks: OFF-SITE DETERMINATION | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------------------|------------------|---|
| 1. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| 4. <input type="text"/> | 0 | <input type="checkbox"/> 0.0% | | |
| | | 0 = Total Cover | | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| | | | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| | | | | Prevalence Index worksheet: |
| | | | | Total % Cover of: <u>0</u> Multiply by: <u>3.000</u> |
| | | | | OBL species <u>0</u> x 1 = <u>0</u> |
| | | | | FACW species <u>0</u> x 2 = <u>0</u> |
| | | | | FAC species <u>80</u> x 3 = <u>240</u> |
| | | | | FACU species <u>0</u> x 4 = <u>0</u> |
| | | | | UPL species <u>0</u> x 5 = <u>0</u> |
| | | | | Column Totals: <u>80</u> (A) <u>240</u> (B) |
| | | | | Prevalence Index = B/A = <u>3.000</u> |
| | | | | Hydrophytic Vegetation Indicators: |
| | | | | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| | | | | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| | | | | <input type="checkbox"/> Wetland Non-Vascular Plants ¹ |
| | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Remarks: Unidentified pasture grasses assumed FAC. Pastured land. | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: **SP 57A**

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|----------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-1 | | | | | | | | no soil, root mass in this layer |
| 1-6 | 10YR | 3/3 | 100% | | | | Loamy Sand | with silt and pebbles |
| 6-18 | 10YR | 3/3 | 100% | | | | Loamy Sand | with silt and pebbles |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐
- 2 cm Muck (A10)
-
- ☐
- Red Parent Material (TF2)
-
- ☐
- 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 ☐ No ☒

Remarks:

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☐ No ☒Depth (inches): **Wetland Hydrology Present?** Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes County LWI City/County: Sunriver/Deschutes Sampling Date: 03-May-10
Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 100
Investigator(s): A. Booy, R. Baker, J. Gordon Section, Township, Range: S 13 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): none Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.8383 Long.: -121.4740 Datum: NAD 83
Soil Map Unit Name: W: Water NWI classification: PEMC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: On-site determination. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|--|------------------|---|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. Salix sp. | 10 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | OBL species <u>0</u> x 1 = <u>0</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>108</u> x 2 = <u>216</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>0</u> x 3 = <u>0</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 10 | = Total Cover | | UPL species <u>2</u> x 5 = <u>10</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>110</u> (A) <u>226</u> (B) |
| 1. Carex sp. | 96 | <input checked="" type="checkbox"/> 96.0% | FACW | Prevalence Index = B/A = <u>2.055</u> |
| 2. Geum macrophyllum | 1 | <input type="checkbox"/> 1.0% | FACW | |
| 3. Rumex acetosa | 2 | <input type="checkbox"/> 2.0% | UPL | |
| 4. Juncus balticus | 1 | <input type="checkbox"/> 1.0% | FACW | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:
Salix sp. and Carex sp. assumed FACW.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 100

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|-----|----------------|---|-------------------|------------------|-----------|-------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-5 | 10YR | 2/2 | 100% | | | | Silt Loam | |
| 5-12 | 10YR | 2/2 | 70% | | | | Muck | 2 different soils |
| 5-12 | 10YR | 4/3 | 30% | | | | Clay Loam | |
| 12-21 | 10YR | 2/2 | 100% | | | | Muck | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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.)

Indicators for Problematic Hydric Soils:³

☒ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

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)

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☐ High Water Table (A2)

☒ Saturation (A3)

☒ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☒ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☒ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

22

Depth (inches):

12

Wetland Hydrology Present? Yes ☒ No ☐

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

WATER TABLE AT 22 INCHES, HOWEVER EVIDENCE OF HIGHER WATER TABLE OBSERVED BY WATER MARKS AND OXIDIZED ROOTS

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes County LWI City/County: Deschutes Sampling Date: 03-May-10
Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 101
Investigator(s): AB/AM/JG/RB Section, Township, Range: S 13 T 20 S R 10 E
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 45.8422 Long.: -121.4749 Datum: NAD 83
Soil Map Unit Name: 144A: Sunriver sandy loam, 0 to 3 percent slopes NWI classification: PSSC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: On-site determination. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size:) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|---|------------------|---|
| 1. Pinus contorta | 15 | <input type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: 1 (A) |
| 2. | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: 2 (B) |
| 3. | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B) |
| 4. | 0 | <input type="checkbox"/> 0.0% | | |
| | 15 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1. Prunus sp. | 40 | <input checked="" type="checkbox"/> 50.0% | FACU | Total % Cover of: Multiply by: |
| 2. Salix sp. | 40 | <input checked="" type="checkbox"/> 50.0% | FACW | OBL species 0 x 1 = 0 |
| 3. | 0 | <input type="checkbox"/> 0.0% | | FACW species 40 x 2 = 80 |
| 4. | 0 | <input type="checkbox"/> 0.0% | | FAC species 15 x 3 = 45 |
| 5. | 0 | <input type="checkbox"/> 0.0% | | FACU species 40 x 4 = 160 |
| | 80 | = Total Cover | | UPL species 0 x 5 = 0 |
| Herb Stratum (Plot size:) | | | | Column Totals: 95 (A) 285 (B) |
| 1. | 0 | <input type="checkbox"/> 0.0% | | Prevalence Index = B/A = 3.000 |
| 2. | 0 | <input type="checkbox"/> 0.0% | | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | |
| 4. | 0 | <input type="checkbox"/> 0.0% | | |
| 5. | 0 | <input type="checkbox"/> 0.0% | | |
| 6. | 0 | <input type="checkbox"/> 0.0% | | |
| 7. | 0 | <input type="checkbox"/> 0.0% | | |
| 8. | 0 | <input type="checkbox"/> 0.0% | | |
| 9. | 0 | <input type="checkbox"/> 0.0% | | |
| 10. | 0 | <input type="checkbox"/> 0.0% | | |
| 11. | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| Woody Vine Stratum (Plot size:) | | | | |
| 1. | 0 | <input type="checkbox"/> 0.0% | | |
| 2. | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 10Pinus contortaP % Cover of Biotic Crust 0 | | | | |

Remarks: Prunus sp. assumed FACU and Salix sp. assumed FACW.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 101

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|-----|----------------|---|-------------------|------------------|-----------|----------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-4 | 10YR | 2/2 | 100% | | | | Silt Loam | ROOTS, UNDECOMPOSED WOOD |
| 4-8 | 10YR | 3/1 | 100% | | | | Silt | ROOTS, UNDECOMPOSED VEG MATERIAL |
| 8-18 | 10YR | 2/2 | 100% | | | | Silt Loam | SAND POCKETS, CHARCOAL |
| | | | | | | | | PLANT MATERIAL |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☒ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

"Undecomposed" means the structure of the organic material is fibrous or unaltered.

The lowest layer (8-18") contains slowly decaying and burnt organic material.

Hydrology

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☒ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☒ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

12

Depth (inches):

4

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

SATURATION AT 4 INCHES, WATER TABLE AT 12 INCHES

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Deschutes Sampling Date: 04-May-10
Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 102
Investigator(s): John Gordon, Adam Merrill Section, Township, Range: S 24 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.8285 Long.: -121.4729 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMF

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: On-site determination. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|---|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | OBL species <u>60</u> x 1 = <u>60</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species <u>40</u> x 2 = <u>80</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species <u>0</u> x 3 = <u>0</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species <u>0</u> x 4 = <u>0</u> |
| | 0 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>100</u> (A) <u>140</u> (B) |
| 1. <u>Scirpus americanus</u> | 60 | <input checked="" type="checkbox"/> 60.0% | OBL | Prevalence Index = B/A = <u>1.400</u> |
| 2. <u>Juncus balticus</u> | 40 | <input checked="" type="checkbox"/> 40.0% | FACW | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Hydrophytic Vegetation Indicators: |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Morphological Adaptations ¹ provide supporting data in Remarks or on a separate sheet) |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (plain) |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 102

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-9 | 10YR | 2/1 | 100% | | | | Muck | |
| 9-15 | 10YR | 2/1 | 100% | | | | Silt | |
| 15-20 | 10YR | 3/1 | 100% | | | | Silt | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☐ Histosol (A1)

☒ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

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)

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☐ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☒ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

16

Depth (inches):

0

Wetland Hydrology Present? Yes ☒ No ☐

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

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 04-May-10
Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 103
Investigator(s): John Gordon, Adam Merrill Section, Township, Range: S 33 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Shoreline Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.7934 Long.: -121.5352 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|----------------------------------|--|------------------|--|
| 1. <u>Pinus contorta</u> | 5 | <input checked="" type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>4</u> (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 5 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Salix geyeriana</u> | 40 | <input checked="" type="checkbox"/> 88.9% | | Total % Cover of: _____ Multiply by: _____ |
| 2. <u>Betula glandulosa</u> | 5 | <input type="checkbox"/> 11.1% | OBL | OBL species <u>55</u> x 1 = <u>55</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>50</u> x 2 = <u>100</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>5</u> x 3 = <u>15</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 45 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>110</u> (A) <u>170</u> (B) |
| 1. <u>Carex aquatilis</u> | 50 | <input checked="" type="checkbox"/> 50.0% | OBL | Prevalence Index = B/A = <u>1.545</u> |
| 2. <u>Juncus ensifolius</u> | 50 | <input checked="" type="checkbox"/> 50.0% | FACW | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: <u>0</u> | % Cover of Biotic Crust <u>0</u> | | | |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 103

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-20 | 10YR | 3/3 | 100% | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

¹ Type: 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)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:
aquic moisture regime

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) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?

Yes ☐ No ☒

Depth (inches):

Water Table Present?

Yes ☒ No ☐

Depth (inches): 10

Saturation Present?
(includes capillary fringe)

Yes ☒ No ☐

Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes County LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 104
Investigator(s): John Gordon, Adam Merrill Section, Township, Range: S 34 T 20 S R 10 E
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.7921 Long.: -121.5196 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: R2UBH

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: Fall River site. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|--|------------------|--|
| 1. <u>Pinus contorta</u> | 10 | <input checked="" type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A) |
| 2. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 3. <u></u> | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>4</u> (B) |
| 4. <u></u> | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| | 10 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Salix geyeriana</u> | 15 | <input checked="" type="checkbox"/> 60.0% | FACW | Total % Cover of: <u>100</u> Multiply by: <u>1</u> |
| 2. <u>Betula glandulosa</u> | 10 | <input checked="" type="checkbox"/> 40.0% | OBL | OBL species <u>100</u> x 1 = <u>100</u> |
| 3. <u></u> | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>15</u> x 2 = <u>30</u> |
| 4. <u></u> | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>10</u> x 3 = <u>30</u> |
| 5. <u></u> | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 25 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>125</u> (A) <u>160</u> (B) |
| 1. <u>Carex aquatilis</u> | 80 | <input checked="" type="checkbox"/> 88.9% | OBL | Prevalence Index = B/A = <u>1.280</u> |
| 2. <u>Carex nebrascensis</u> | 10 | <input type="checkbox"/> 11.1% | OBL | |
| 3. <u></u> | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Indicators: |
| 4. <u></u> | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 5. <u></u> | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| 6. <u></u> | 0 | <input type="checkbox"/> 0.0% | | <input type="checkbox"/> Morphological Adaptations ¹ provide supporting data in Remarks or on a separate sheet) |
| 7. <u></u> | 0 | <input type="checkbox"/> 0.0% | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (plain) |
| 8. <u></u> | 0 | <input type="checkbox"/> 0.0% | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 9. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 10. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| 11. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| | 90 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <u></u> | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 2. <u></u> | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:
about 10% openwater

* Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 104

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|-------|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-14 | 7.5YR | 2.5/1 | 100% | | | | organic | |
| 14-20 | 7.5YR | 3/2 | 100% | | | | organic | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹ Type: 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.)

| | |
|--|---|
| <input checked="" type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox depressions (F8) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:³

| |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Other (Explain in Remarks) |

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Depths approximate; soil very wet and unconsolidated except 0-14" is very full of roots making extraction of sample difficult

Hydrology

Wetland Hydrology Indicators:

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

| | |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) |

Secondary Indicators (2 or more required)

| |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-neutral Test (D5) |

Field Observations:

| | | | |
|--|---|-----------------|--------------------------------|
| Surface Water Present? | Yes <input checked="" type="radio"/> No <input type="radio"/> | Depth (inches): | <input type="text" value="1"/> |
| Water Table Present? | Yes <input checked="" type="radio"/> No <input type="radio"/> | Depth (inches): | <input type="text" value="0"/> |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="radio"/> No <input type="radio"/> | Depth (inches): | <input type="text" value="0"/> |

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Surface water varies, to 2 inches deep to 1 inch near pit.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 106
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 35 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.8007 Long.: -121.5055 Datum: NAD 83
Soil Map Unit Name: Not available 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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|---|------------------|--|------------------|---|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: <u>4</u> (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Salix geyeriana</u> | 25 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | OBL species <u>80</u> x 1 = <u>80</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species <u>45</u> x 2 = <u>90</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species <u>0</u> x 3 = <u>0</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species <u>0</u> x 4 = <u>0</u> |
| | 25 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>125</u> (A) <u>170</u> (B) |
| 1. <u>Carex nebrascensis</u> | 40 | <input checked="" type="checkbox"/> 40.0% | OBL | Prevalence Index = B/A = <u>1.360</u> |
| 2. <u>Carex aquatilis</u> | 40 | <input checked="" type="checkbox"/> 40.0% | OBL | |
| 3. <u>Juncus balticus</u> | 20 | <input checked="" type="checkbox"/> 20.0% | FACW | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 % Cover of Biotic Crust 0 | | | | |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: sp106

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

| Depth (inches) | Matrix | | Redox Features | | | | | | Texture | Remarks |
|----------------|---------------|-----|----------------|-------|-------------------|------------------|---|---|-----------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | | | |
| 0-4 | 10YR | 3/3 | 80% | 2.5YR | 4/6 | 20% | C | M | Silt Loam | root mass |
| 4-10 | 10YR | 3/3 | 80% | 2.5YR | 4/6 | 20% | C | M | Silt Loam | |
| 10-14 | 10YR | 3/1 | 80% | 2.5YR | 4/6 | 20% | C | M | Loam | |
| 14-20 | 10YR | 3/3 | 80% | 2.5YR | 4/6 | 20% | C | M | Silt Loam | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

¹ Type: 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)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDRIC SOILS ASSUMED BASED ON HYDROLOGY INDICATORS AND WETLAND VEGETATION.

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) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches): 16

Depth (inches): 12

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

US Army Corps of Engineers

Arid West - Version 2 Oct. 2008

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 107
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 35 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.7978 Long.: -121.5029 Datum: NAD 83
Soil Map Unit Name: N/A 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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size:) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|-------------------------------------|---------------------------|--|------------------|--|
| 1. | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: 3 (A) |
| 2. | 0 | <input type="checkbox"/> 0.0% | | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: 3 (B) |
| 4. | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) |
| | 0 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1. Salix geyeriana | 10 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: Multiply by: |
| 2. | 0 | <input type="checkbox"/> 0.0% | | OBL species 100 x 1 = 100 |
| 3. | 0 | <input type="checkbox"/> 0.0% | | FACW species 10 x 2 = 20 |
| 4. | 0 | <input type="checkbox"/> 0.0% | | FAC species 0 x 3 = 0 |
| 5. | 0 | <input type="checkbox"/> 0.0% | | FACU species 0 x 4 = 0 |
| | 10 | = Total Cover | | UPL species 0 x 5 = 0 |
| Herb Stratum (Plot size:) | | | | Column Totals: 110 (A) 120 (B) |
| 1. Carex aquatilis | 80 | <input checked="" type="checkbox"/> 80.0% | OBL | Prevalence Index = B/A = 1.091 |
| 2. Carex nebrascensis | 20 | <input checked="" type="checkbox"/> 20.0% | OBL | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | |
| 4. | 0 | <input type="checkbox"/> 0.0% | | |
| 5. | 0 | <input type="checkbox"/> 0.0% | | |
| 6. | 0 | <input type="checkbox"/> 0.0% | | |
| 7. | 0 | <input type="checkbox"/> 0.0% | | |
| 8. | 0 | <input type="checkbox"/> 0.0% | | |
| 9. | 0 | <input type="checkbox"/> 0.0% | | |
| 10. | 0 | <input type="checkbox"/> 0.0% | | |
| 11. | 0 | <input type="checkbox"/> 0.0% | | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size:) | | | | |
| 1. | 0 | <input type="checkbox"/> 0.0% | | |
| 2. | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 107

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-6 | 10YR | 3/4 | 100% | | | | Silt Loam | gravelly, Thick root mass |
| 6-20 | 10YR | 3/2 | 100% | | | | Silty Clay | gravelly |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:
peraquic moisture regime

Hydrology

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☒ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

2

Depth (inches):

0

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 108
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 35 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0°
Subregion (LRR): LRR B Lat.: 43.7945 Long.: -121.5034 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PSSC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|--|------------------|--|
| 1. <u>Pinus contorta</u> | 10 | <input checked="" type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: <u>5</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>5</u> (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 10 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Betula glandulosa</u> | 5 | <input checked="" type="checkbox"/> 100.0% | OBL | Total % Cover of: _____ Multiply by: _____ |
| 2. <u>Salix geyeriana</u> | 0 | <input type="checkbox"/> 0.0% | FACW | OBL species <u>55</u> x 1 = <u>55</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>50</u> x 2 = <u>100</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>10</u> x 3 = <u>30</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 5 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>115</u> (A) <u>185</u> (B) |
| 1. <u>Juncus balticus</u> | 50 | <input checked="" type="checkbox"/> 50.0% | FACW | Prevalence Index = B/A = <u>1.609</u> |
| 2. <u>Carex aquatilis</u> | 30 | <input checked="" type="checkbox"/> 30.0% | OBL | |
| 3. <u>Carex nebrascensis</u> | 20 | <input checked="" type="checkbox"/> 20.0% | OBL | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Indicators: |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| | 0 | = Total Cover | | <input type="checkbox"/> Morphological Adaptations ¹ provide supporting data in Remarks or on a separate sheet) |
| % Bare Ground in Herb Stratum: 0 % Cover of Biotic Crust 0 | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (plain) |
| Remarks: | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 108

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

| Depth (inches) | Matrix | | Redox Features | | | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|-------|-------------------|------------------|---|---|---------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | | | |
| 0-4 | 10YR | 3/3 | 80% | 2.5YR | 4/6 | 20% | C | M | | root mass |
| 4-10 | 10YR | 3/3 | 80% | 2.5YR | 4/6 | 20% | C | M | | |
| 10-20 | 10YR | 3/1 | 80% | 2.5YR | 4/6 | 20% | C | M | | |
| | | | | | | | | | | |
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¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:
HYDRIC SOILS ASSUMED BASED ON HYDROLOGY INDICATORS.

Hydrology

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☐ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

Depth (inches):

12

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 109
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 34 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.7947 Long.: -121.5082 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PSSC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|---|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | OBL species <u>100</u> x 1 = <u>100</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species <u>0</u> x 2 = <u>0</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species <u>0</u> x 3 = <u>0</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species <u>0</u> x 4 = <u>0</u> |
| | 0 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>100</u> (A) <u>100</u> (B) |
| 1. <u>Carex nebrascensis</u> | 50 | <input checked="" type="checkbox"/> 50.0% | OBL | Prevalence Index = B/A = <u>1.000</u> |
| 2. <u>Carex aquatilis</u> | 50 | <input checked="" type="checkbox"/> 50.0% | OBL | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Hydrophytic Vegetation Indicators: |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Morphological Adaptations ¹ provide supporting data in Remarks or on a separate sheet) |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (plain) |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 109

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-20 | 10YR | 2/1 | 100% | | | | Silt Loam | |
| | | | | | | | | |
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¹ Type: 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)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

HYDRIC SOILS ASSUMED BASED ON PERSISTANT SATURATION (AQUIC MOISTURE REGIME).

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) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?

Yes ☐

No ☒

Depth (inches):

Water Table Present?

Yes ☐

No ☒

Depth (inches):

Saturation Present?
(includes capillary fringe)

Yes ☒

No ☐

Depth (inches): 0

Wetland Hydrology Present?

Yes ☒

No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 110
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 34 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.7917 Long.: -121.5096 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PSSC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size:) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|------------------|--|------------------|--|
| 1. | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: 3 (A) |
| 2. | 0 | <input type="checkbox"/> 0.0% | | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: 3 (B) |
| 4. | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) |
| = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size:) | | | | Prevalence Index worksheet: |
| 1. Salix geyeriana | 30 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: Multiply by: |
| 2. | 0 | <input type="checkbox"/> 0.0% | | OBL species 100 x 1 = 100 |
| 3. | 0 | <input type="checkbox"/> 0.0% | | FACW species 30 x 2 = 60 |
| 4. | 0 | <input type="checkbox"/> 0.0% | | FAC species 0 x 3 = 0 |
| 5. | 0 | <input type="checkbox"/> 0.0% | | FACU species 0 x 4 = 0 |
| = Total Cover | | | | UPL species 0 x 5 = 0 |
| Herb Stratum (Plot size:) | | | | Column Totals: 130 (A) 160 (B) |
| 1. Carex aquatilis | 60 | <input checked="" type="checkbox"/> 60.0% | OBL | Prevalence Index = B/A = 1.231 |
| 2. Carex nebrascensis | 40 | <input checked="" type="checkbox"/> 40.0% | OBL | |
| 3. | 0 | <input type="checkbox"/> 0.0% | | |
| 4. | 0 | <input type="checkbox"/> 0.0% | | |
| 5. | 0 | <input type="checkbox"/> 0.0% | | |
| 6. | 0 | <input type="checkbox"/> 0.0% | | |
| 7. | 0 | <input type="checkbox"/> 0.0% | | |
| 8. | 0 | <input type="checkbox"/> 0.0% | | |
| 9. | 0 | <input type="checkbox"/> 0.0% | | |
| 10. | 0 | <input type="checkbox"/> 0.0% | | |
| 11. | 0 | <input type="checkbox"/> 0.0% | | |
| = Total Cover | | | | |
| Woody Vine Stratum (Plot size:) | | | | Hydrophytic Vegetation Indicators: |
| 1. | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 2. | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| = Total Cover | | | | <input type="checkbox"/> Morphological Adaptations ¹ provide supporting data in Remarks or on a separate sheet) |
| | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (plain) |
| % Bare Ground in Herb Stratum: 0 % Cover of Biotic Crust 0 | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| Remarks: | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 110

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

| Depth (inches) | Matrix | | Redox Features | | | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|-------|-------------------|------------------|---|---|------------|-----------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | | | |
| 0-7 | 10YR | 2/1 | 100% | | | | | | Silt | dense root mass |
| 7-10 | 10YR | 2/1 | 60% | 2.5YR | 3/6 | 40% | C | M | Silt | |
| 10-20 | 5Y | 7/3 | 70% | 10YR | 4/6 | 30% | C | M | Silty Clay | |
| | | | | | | | | | | |
| | | | | | | | | | | |
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¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:
HYDRIC SOILS ASSUMED BASED ON HYDROLOGY INDICATOR.

Hydrology

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☐ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

Depth (inches):

10

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 111
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 3 T 21 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): flat Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.7795 Long.: -121.5162 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|--|------------------|---|
| 1. <u>Pinus contorta</u> | 5 | <input checked="" type="checkbox"/> 100.0% | FAC | Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>3</u> (B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 5 | = Total Cover | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Salix geyeriana</u> | 20 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | OBL species <u>90</u> x 1 = <u>90</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>20</u> x 2 = <u>40</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>10</u> x 3 = <u>30</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 20 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>120</u> (A) <u>160</u> (B) |
| 1. <u>Carex aquatilis</u> | 80 | <input checked="" type="checkbox"/> 84.2% | OBL | Prevalence Index = B/A = <u>1.333</u> |
| 2. <u>Carex nebrascensis</u> | 10 | <input type="checkbox"/> 10.5% | OBL | |
| 3. <u>Agrostis sp.</u> | 5 | <input type="checkbox"/> 5.3% | FAC | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 95 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:

Agrostis sp. assumed FAC.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 111

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

| Depth (inches) | Matrix | | Redox Features | | | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|-------|-------------------|------------------|---|---|------------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | | | |
| 0-8 | 10YR | 2/1 | 100% | | | | | | Silty Clay | ROOT MASS |
| 8-11 | 10YR | 2/1 | 100% | | | | | | Silty Clay | |
| 11-20 | 2.5Y | 7/4 | 70% | 2.5YR | 4/8 | 30% | C | M | Silty Clay | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDRIC SOILS ASSUMED BASED ON PERSISTANT SATURATION (AQUIC MOISTURE REGIME).

Hydrology

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☐ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

18

Depth (inches):

0

Wetland Hydrology Present? Yes ☒ No ☐

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

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 06-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 112
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 3 T 21 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): hummocky Slope: 0.0% / 0.0°
Subregion (LRR): LRR B Lat.: 43.7866 Long.: -121.5143 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|--|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>3</u> (B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| | 0 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Salix geyeriana</u> | 5 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | OBL species <u>60</u> x 1 = <u>60</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>5</u> x 2 = <u>10</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>40</u> x 3 = <u>120</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 5 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>105</u> (A) <u>190</u> (B) |
| 1. <u>Carex aquatilis</u> | 60 | <input checked="" type="checkbox"/> 60.0% | OBL | Prevalence Index = B/A = <u>1.810</u> |
| 2. <u>Agrostis sp.</u> | 40 | <input checked="" type="checkbox"/> 40.0% | FAC | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Indicators: |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | | <input type="checkbox"/> Morphological Adaptations ¹ provide supporting data in Remarks or on a separate sheet) |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (plain) |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |
| Remarks: | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 112

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-5 | 10YR | 3/2 | 100% | | | | Silt Loam | root mass |
| 5-10 | 10YR | 2/1 | 100% | | | | Silt Loam | |
| 10-20 | 10YR | 3/2 | 100% | | | | Silt Loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:
aquic moisture regime

Hydrology

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☐ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

Depth (inches):

0

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes LWI City/County: Sunriver/Deschutes Sampling Date: 07-May-10
Applicant/Owner: Deschutes County State: OR Sampling Point: SP 113
Investigator(s): Alessandra Capretti, Adam Merrill Section, Township, Range: S 35 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): hummocky Slope: 0.0% / 0.0 °
Subregion (LRR): LRR B Lat.: 43.7908 Long.: -121.5039 Datum: NAD 83
Soil Map Unit Name: W: Water 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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|--|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: <u>3</u> (B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B) |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Salix geyeriana</u> | 10 | <input checked="" type="checkbox"/> 100.0% | _____ | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | OBL species <u>90</u> x 1 = <u>90</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species <u>10</u> x 2 = <u>20</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species <u>0</u> x 3 = <u>0</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species <u>0</u> x 4 = <u>0</u> |
| | 10 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>100</u> (A) <u>110</u> (B) |
| 1. <u>Carex nebrascensis</u> | 30 | <input checked="" type="checkbox"/> 30.0% | OBL | Prevalence Index = B/A = <u>1.100</u> |
| 2. <u>Carex aquatilis</u> | 60 | <input checked="" type="checkbox"/> 60.0% | OBL | |
| 3. <u>Juncus balticus</u> | 10 | <input type="checkbox"/> 10.0% | FACW | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | Hydrophytic Vegetation Indicators: |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Dominance Test is > 50% |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | <input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ |
| | 0 | = Total Cover | | <input type="checkbox"/> Morphological Adaptations ¹ provide supporting data in Remarks or on a separate sheet) |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (plain) |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------------|------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-3 | 10YR | 3/2 | 100% | | | | Silty Clay Loam | thi ck root mass |
| 3-8 | 10YR | 3/2 | 100% | | | | Silty Clay Loam | |
| 8-20 | 10YR | 2/1 | 100% | | | | Silty Clay Loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹ Type: 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)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:
HYDRIC SOILS ASSUMED BASED ON HYDROLOGY INDICATORS.

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) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☒ No ☐

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

16

Depth (inches):

8

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: DESCHUTES LWI City/County: SUNRIVER/DESCHUTES Sampling Date: 17-Nov-10
 Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 114
 Investigator(s): Sarah Hartung Section, Township, Range: S 2 T 21 S R 10 E
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): concave Slope: 0.0% / 0.0 °
 Subregion (LRR): LRR A Lat.: 43.7873 Long.: -121.5066 Datum: NAD83
 Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PSSC

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, et

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B) |
|---|------------------|--|------------------|---|
| 1. <u>Pinus contorta</u> | <u>40</u> | <input checked="" type="checkbox"/> 100.0% | <u>FAC</u> | |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 3. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 4. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| <u>40</u> = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>140</u> x 3 = <u>420</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>170</u> (A) <u>480</u> (B) Prevalence Index = B/A = <u>0.000</u> |
| 1. <u>Betula glandulosa</u> | <u>30</u> | <input checked="" type="checkbox"/> 100.0% | <u>FACW</u> | |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 3. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 4. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 5. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| <u>30</u> = Total Cover | | | | |
| Herb Stratum (Plot size: <input type="text"/>) | | | | |
| 1. <u>Poa sp.</u> | <u>100</u> | <input checked="" type="checkbox"/> 100.0% | <u>FAC</u> | |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 3. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 4. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 5. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 6. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 7. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 8. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 9. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 10. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 11. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| <u>100</u> = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| 2. _____ | <u>0</u> | <input type="checkbox"/> 0.0% | | |
| <u>0</u> = Total Cover | | | | |
| % Bare Ground in Herb Stratum: <u>0</u> | | | | |
| Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | |
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | | | | |
| Remarks: Poa sp. assumed FAC. | | | | |

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: SP 114

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|-----------|-----------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-7 | 10YR | 2/1 | 100% | | | | peat | |
| 7-20 | 10YR | 3/1 | 100% | | | | Silt Loam | with high level of organics |
| | | | | | | | | |
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| | | | | | | | | |

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.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox depressions (F8) |

Indicators for Problematic Hydric Soils:³

- ☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☒ 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 ☒ No ☐

Remarks:

Hydric soils assumed based on persistent saturation.

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two 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? (includes capillary fringe) Yes ☒ No ☐Depth (inches): Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deschutes County LWI City/County: Sunriver/Deschutes Sampling Date: 04-May-10
Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 201
Investigator(s): Sarah Hartung, Aaron Booy Section, Township, Range: S 7 T 20 S R 11 E
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope: 1.0% / 0.6 °
Subregion (LRR): LRR B Lat.: 43.8632 Long.: -121.4536 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PSSC

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 <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area |
| Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Remarks: Off-site determination. | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel.Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|--|------------------|---|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. <u>Salix geyeriana</u> | 15 | <input checked="" type="checkbox"/> 100.0% | FACW | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | OBL species <u>90</u> x 1 = <u>90</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | | FACW species <u>25</u> x 2 = <u>50</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | FAC species <u>0</u> x 3 = <u>0</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | FACU species <u>0</u> x 4 = <u>0</u> |
| | 15 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>115</u> (A) <u>140</u> (B) |
| 1. <u>Carex aquatilis</u> | 85 | <input checked="" type="checkbox"/> 85.0% | OBL | Prevalence Index = B/A = <u>1.217</u> |
| 2. <u>Typha latifolia</u> | 5 | <input type="checkbox"/> 5.0% | OBL | |
| 3. <u>Phalaris arundinacea</u> | 10 | <input type="checkbox"/> 10.0% | FACW | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 201

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

| Depth (inches) | Matrix | | Redox Features | | | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|------|-------------------|------------------|---|---|-----------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | | | |
| 0-4 | 10YR | 2/1 | 100% | | | | | | Silt Loam | |
| 4-10 | 10YR | 2/1 | 100% | | | | | | Clay Loam | |
| 10-22 | 10YR | 2/1 | 80% | 10YR | 3/4 | 20% | C | M | Clay Loam | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

¹ Type: 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.)

Indicators for Problematic Hydric Soils:³

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☒ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:
ASSUME HYDRIC SOILS BASED ON PERSISTENT SATURATION.

Hydrology

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)

☐ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Water Table Present? Yes ☐ No ☒

Saturation Present? (includes capillary fringe) Yes ☒ No ☐

Depth (inches):

Depth (inches):

Depth (inches):

5

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Deachutes County LWI City/County: Sunriver/Deschutes Sampling Date: 04-May-10
Applicant/Owner: DESCHUTES COUNTY State: OR Sampling Point: SP 202
Investigator(s): Sarah Hartung, Aaron Booy Section, Township, Range: S 12 T 20 S R 10 E
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat Slope: 1.0% / 0.6 °
Subregion (LRR): LRR B Lat.: 43.8537 Long.: -121.4812 Datum: NAD 83
Soil Map Unit Name: 29A: Cryaquolls, 0 to 3 percent slopes NWI classification: PEMA

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 <input type="radio"/> No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: <input type="text"/>) | Absolute % Cover | Dominant Species? Rel. Strat. Cover | Indicator Status | Dominance Test worksheet: |
|--|---------------------------|---|------------------|--|
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Percent of dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B) |
| | 0 | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <input type="text"/>) | | | | Prevalence Index worksheet: |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | OBL species <u>0</u> x 1 = <u>0</u> |
| 3. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACW species <u>0</u> x 2 = <u>0</u> |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FAC species <u>55</u> x 3 = <u>165</u> |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | FACU species <u>45</u> x 4 = <u>180</u> |
| | 0 | = Total Cover | | UPL species <u>0</u> x 5 = <u>0</u> |
| Herb Stratum (Plot size: <input type="text"/>) | | | | Column Totals: <u>100</u> (A) <u>345</u> (B) |
| 1. Achillea millefolium | 40 | <input checked="" type="checkbox"/> 40.0% | FACU | Prevalence Index = B/A = <u>3.450</u> |
| 2. Poa sp. | 55 | <input checked="" type="checkbox"/> 55.0% | FAC | |
| 3. Taraxacum officinale | 5 | <input type="checkbox"/> 5.0% | FACU | |
| 4. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 5. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 6. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 7. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 8. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 9. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 10. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 11. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 100 | = Total Cover | | |
| Woody Vine Stratum (Plot size: <input type="text"/>) | | | | |
| 1. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| 2. _____ | 0 | <input type="checkbox"/> 0.0% | _____ | |
| | 0 | = Total Cover | | |
| % Bare Ground in Herb Stratum: 0 | % Cover of Biotic Crust 0 | | | |

Remarks:

Poa sp. assumed FAC.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 202

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-------|----------------|---|-------------------|------------------|------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-8 | 7.5YR | 2.5/2 | 100% | | | | Loam | |
| 8-20 | 10YR | 2/2 | 100% | | | | Sandy Clay | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹ Type: 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)

☐ Stratified Layers (A5) (LRR C)

☐ 1 cm Muck (A9) (LRR D)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Muck Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox depressions (F8)

☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present.

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) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Plowed Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☐ Shallow Aquitard (D3)

☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes No

Water Table Present? Yes No

Saturation Present?
(includes capillary fringe) Yes No

Depth (inches):

Depth (inches):

Depth (inches):

Wetland Hydrology Present? Yes No

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

Remarks: