

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u>	Date: <u>04/14/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TK, TSS</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAE</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAE-DW 1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Alopecurus pratensis</i> (meadow foxtail)	Herb	FACW	1 <i>Taraxcum officinale</i> (common dandelion)	Herb	FACU
2 <i>Lupinus polyphyllus</i> (bigleaf lupine)	Herb	FAC+	2 <i>Juncus effusus</i> (soft rush)	Herb	FACW
3			3 <i>Rosa spp.</i>		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>2</u> (In.) Depth to Free Water in Pit: <u>12</u> (In.) Depth to Saturated Soil: <u>3</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: <u>A man-made berm appears to have been constructed in the area, which is causing the retention of surface water. Various depths of inundation were observed throughout the wetland. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u>	Drainage Class: <u>MW</u>																								
Taxonomy (Subgroup): <u>Humic Fragixerepts</u>	Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																								
Profile Description: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Depth (inches)</th> <th>Horizon</th> <th>Matrix Color (Munsell Moist)</th> <th>Mottle Colors (Munsell Moist)</th> <th>Mottle Abundance/ Size/Contrast</th> <th>Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-3</td> <td>A</td> <td>10YR 3/2</td> <td>-</td> <td></td> <td>Silt loam</td> </tr> <tr> <td>3-8</td> <td>B1</td> <td>10YR 4/2</td> <td>7.5 YR 4/6</td> <td>many/ fine/ prominent</td> <td>Silt loam</td> </tr> <tr> <td>8-16</td> <td>B2</td> <td>10YR 5/2</td> <td>7.5 YR 4/6</td> <td>many/ fine/ prominent</td> <td>Silt loam</td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	0-3	A	10YR 3/2	-		Silt loam	3-8	B1	10YR 4/2	7.5 YR 4/6	many/ fine/ prominent	Silt loam	8-16	B2	10YR 5/2	7.5 YR 4/6	many/ fine/ prominent	Silt loam
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.																				
0-3	A	10YR 3/2	-		Silt loam																				
3-8	B1	10YR 4/2	7.5 YR 4/6	many/ fine/ prominent	Silt loam																				
8-16	B2	10YR 5/2	7.5 YR 4/6	many/ fine/ prominent	Silt loam																				
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																									
Remarks: <u>Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>																									

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: <u>Emergent. Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u>	Date: <u>04/18/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TK, TSS</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAF</u>
Is Area a Potential Problem Area? (If needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAF-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC	1 <i>Juncus effusus</i> (soft rush)	H	FACW
2 <i>Rosa nutkana</i> (Nootka rose)	S	FAC	2 <i>Carex</i> sp. (sedges)	H	
3 <i>Alopecurus geniculatus</i> (water foxtail)	H	OBL	3 <i>Lupinus polyphyllus</i> (bigleaf lupine)		FAC+
4			4 <i>Cirsium vulgare</i> (bull thistle)	H	FACU
5			5 <i>Rubus armeniacus</i> (Himalayan blackberry), <i>R. discolor</i> , <i>R. procerus</i>	V	FACU
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Forested wetland area present as well.
 More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>2</u> (In.) Depth to Free Water in Pit: <u>12</u> (In.) Depth to Saturated Soil: <u>8</u> (In.)		

Remarks: Areas of surface inundation. Although it rained for last few days, the water in the pit is from below, though and rising, not from percolation. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u>	Drainage Class: <u>MW</u> Circle
Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 3/3			Silt loam
8+	B	10YR 4/2	7.5YR 4/6	Common/coarse/distinct	Silt loam

Hydric Soil Indicators:	<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> Aquic Moisture Regime			

Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Remarks: Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.

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ROUTINE WETLAND DETERMINATION
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Project Site: <u>SR 502 Widening</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>TK</u>	Date: <u>05/24/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAG</u> Plot ID: <u>SAG-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Epilobium ciliatum</i> (fringed willowherb)	Herb	FACW-	1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patters in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>12</u> (In.) Depth to Free Water in Pit: <u>0</u> (nun. to surface) (In.) Depth to Saturated Soil: _____ (In.)		
Remarks: <u>The wetland was located in a heavily incised channel. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u>		

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u> Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Drainage Class: <u>P</u> Circle Field Observations Confirm Mapped Type? No				
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input checked="" type="checkbox"/> Reducing Conditions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Concretions <input type="checkbox"/> Listed on Local Hydric Soils List <input checked="" type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Other (explain in remarks)					
Remarks: <u>Soil investigation was limited due to the depth of inundation in the wetland, although it was assumed that the soils were hydric due to the fact that the area was inundated and or saturated for a duration sufficient to promote anaerobic conditions. Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks: <u>Emergent wetland. Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>TK, TSS</u>	Date: <u>04/25/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAH</u> Plot ID: <u>SAH-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC	1		
2 <i>Alopecurus pratensis</i> (meadow foxtail)	H	FACW	2		
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>4</u> (in.) Depth to Free Water in Pit: <u>0</u> (inun. to surface) (in.) Depth to Saturated Soil: <u>0</u> (sat. to surface) (in.)	
Remarks: <u>Various depths of inundation and saturation were observed throughout the wetland. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Hockinson loam</u> Taxonomy (Subgroup): <u>Fluvaqueptic Endoaquept</u>	Drainage Class: <u>P</u> <i>Circle</i> Field Observations Confirm Mapped Type? <u>Yes</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0-6	A	2.5Y 4/1	2.5Y 4/3	Common/fine/faint	Silt loam
6+	B	2.5Y 5/1	7.5YR 4/6	Many/medium/prominent	Silt loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: <u>Emergent wetland. Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>			

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>CP, TK</u>	Date: <u>05/05/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Nonwetland</u> Transect ID: <u>SAI</u> Plot ID: <u>SAI-DU1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Rumex acetosella</i> (common sheep sorrel)	H	FACU+	1 <i>Dactylis glomerata</i> (orchard grass)	H	FACU
2 <i>Lolium perenne</i> (perennial ryegrass)	H	FACU	2 <i>Mertensia linearis</i> (narrowleaf miners lettuce)	H	NL
3			3 <i>Lotus corniculatus</i> (birdsfoot trefoil)	H	FAC
4			4 <i>Trifolium repens</i> (white clover)	H	FAC
5			5 <i>Anthoxanthum odoratum</i> (sweet vernalgrass)	H	FACU
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: 50% or less of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus failing to meet the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>Not observed</u> (In.) Depth to Free Water in Pit: <u>Not observed</u> (In.) Depth to Saturated Soil: <u>Not observed</u> (In.)	Remarks: This area may be drained by the nearby ditch (SAI). No Indicators of wetland hydrology were observed, thus failing to meet the wetland hydrology criterion.	

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u> Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Drainage Class: <u>MW</u> <i>Circle</i> Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																								
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 15%;">Depth (inches)</th> <th style="width: 15%;">Horizon</th> <th style="width: 20%;">Matrix Color (Munsell Moist)</th> <th style="width: 20%;">Mottle Colors (Munsell Moist)</th> <th style="width: 20%;">Mottle Abundance/ Size/Contrast</th> <th style="width: 10%;">Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-5</td> <td>A</td> <td>10YR 3/2</td> <td>2.5Y 4/1</td> <td>Coarse/common/depletions</td> <td>Silt loam</td> </tr> <tr> <td>5-11</td> <td>B</td> <td>10YR 3/1</td> <td></td> <td></td> <td>Silt loam</td> </tr> <tr> <td>11+</td> <td>B</td> <td>2.5Y 5/2</td> <td>7.5YR 5/8</td> <td>Common/medium/distinct</td> <td>Silt loam</td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	0-5	A	10YR 3/2	2.5Y 4/1	Coarse/common/depletions	Silt loam	5-11	B	10YR 3/1			Silt loam	11+	B	2.5Y 5/2	7.5YR 5/8	Common/medium/distinct	Silt loam
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.																				
0-5	A	10YR 3/2	2.5Y 4/1	Coarse/common/depletions	Silt loam																				
5-11	B	10YR 3/1			Silt loam																				
11+	B	2.5Y 5/2	7.5YR 5/8	Common/medium/distinct	Silt loam																				
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Low-Chroma Colors <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Concretions <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Other (explain in remarks)																									
Remarks:																									

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Area lacks wetland indicators and fails to meet wetland criteria of at least one of the three parameters, and therefore is nonwetland.	

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ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>TK, CP</u>	Date: <u>05/05/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAI</u> Plot ID: <u>SAI-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Myosotis laxa</i> (bay forget-me-not)	H	OBL	1 <i>Epilobium ciliatum</i> (tinged willowherb)	H	FACW-
2 <i>Ranunculus repens</i> (creeping buttercup)	H	FACW	2 <i>Equisetum sp. (horsetails)</i>	H	
3 <i>Rosa pisocarpa</i> (cluster rose)	S	FAC	3		
4 <i>Rubus ursinus</i> (California blackberry)	V	FACU	4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): $3/4 = 75\%$

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>None</u> (In.) Depth to Free Water in Pit: <u>14</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)</u> (In.)		
Remarks: Primary indicators of wetland hydrology were observed, thus meeting the wetland hydrology indicator. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.		

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u> Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Drainage Class: <u>MW</u> <i>Circle</i> Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																														
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 10%;">Depth (inches)</th> <th style="width: 10%;">Horizon</th> <th style="width: 20%;">Matrix Color (Munsell Moist)</th> <th style="width: 20%;">Mottle Colors (Munsell Moist)</th> <th style="width: 15%;">Mottle Abundance/Size/Contrast</th> <th style="width: 25%;">Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-10</td> <td>A</td> <td>10YR 4/2</td> <td>10YR 4/4</td> <td>Common/medium/distinct</td> <td>Silt loam</td> </tr> <tr> <td>10-14</td> <td>B</td> <td>10YR 5/1</td> <td>7.5YR 5/6</td> <td>Common/medium/distinct</td> <td>Silt loam</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.	0-10	A	10YR 4/2	10YR 4/4	Common/medium/distinct	Silt loam	10-14	B	10YR 5/1	7.5YR 5/6	Common/medium/distinct	Silt loam												
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.																										
0-10	A	10YR 4/2	10YR 4/4	Common/medium/distinct	Silt loam																										
10-14	B	10YR 5/1	7.5YR 5/6	Common/medium/distinct	Silt loam																										
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime																															
<input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils																															
<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																															
Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion.																															

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks: Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>TK, CP</u>	Date: <u>05/05/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAI</u> Plot ID: <u>SAI-DW2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Anthoxanthum odoratum</i> (sweet vernalgrass)	H	FACU	1 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC
2			3 <i>Fraxinus latifolia</i> (Oregon ash)	H	FACW
3			4 <i>Montia linearis</i> (narrowleaf miner's lettuce)	H	NL
4			5 <i>Juncus</i> spp. (rushes)	H	
5			6 <i>Carex</i> spp. (sedges)	H	
6			7		
7			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: The dominant plant species was a FACU annual. Most of the non-dominant species were FAC and wetter. Since the conditions were drier than normal, it was assumed that this indicator would probably have been met during the early part of the growing season. Based on this information and the strength of the indicators for the other 2 parameters, we feel that more than 50% of the dominant species would normally have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: <i>Primary Indicators:</i> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	<i>Secondary Indicators (2 or more required):</i> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>None</u> (In.) Depth to Free Water in Pit: <u>14</u> (In.) Depth to Saturated Soil: <u>Saturated at surface</u> (In.)		
<i>Remarks:</i> Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.		

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u> Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Drainage Class: <u>MW</u> <i>Circle</i> Field Observations Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																		
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Depth (inches)</th> <th style="width: 10%;">Horizon</th> <th style="width: 20%;">Matrix Color (Munsell Moist)</th> <th style="width: 20%;">Mottle Colors (Munsell Moist)</th> <th style="width: 20%;">Mottle Abundance/ Size/Contrast</th> <th style="width: 20%;">Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-10</td> <td>A</td> <td>10YR 4/2</td> <td>10YR 4/4, and 10YR 5/1</td> <td>Common/medium/faint</td> <td>Silt loam</td> </tr> <tr> <td>10-14</td> <td>B</td> <td>10YR 5/1</td> <td>7.5YR 5/6</td> <td>Common/medium/prominent</td> <td>Silt loam</td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	0-10	A	10YR 4/2	10YR 4/4, and 10YR 5/1	Common/medium/faint	Silt loam	10-14	B	10YR 5/1	7.5YR 5/6	Common/medium/prominent	Silt loam
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.														
0-10	A	10YR 4/2	10YR 4/4, and 10YR 5/1	Common/medium/faint	Silt loam														
10-14	B	10YR 5/1	7.5YR 5/6	Common/medium/prominent	Silt loam														
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																
<i>Remarks:</i> Indicators of hydric soils were observed, thus meeting the hydric soils criterion.																			

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<i>Remarks:</i> Strong evidence of wetland hydrology and hydric soils were observed, thus despite the current lack of hydrophytic vegetation, we believe the area is a wetland.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>CP, TSS</u>	Date: <u>05/11/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAI</u> Plot ID: <u>SAI-DW3</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Anthoxanthum odoratum</i> (sweet vernalgrass), NonNative	H	FACU	1 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC
2			2 <i>Juncus</i> sp. (rushes)	H	
3			3 <i>Myosotis discolor</i> (changing forget-me-not)	H	FACW
4			4 Composite species	H	
5			5 <i>Vicia sativa</i> (garden vetch)	H	NL
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: The dominant plant species was a FACU annual. Most of the non-dominant species were FAC and wetter. Since the conditions were drier than normal, it was assumed that this indicator would probably have been met during the early part of the growing season. Based on this information and the strength of the indicators for the other 2 parameters, we feel that more than 50% of the dominant species would normally have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>0*</u> (In.) Depth to Free Water in Pit: <u>6</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)</u> (In.)	Wetland Hydrology Indicators: <i>Primary Indicators:</i> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patters in Wetlands	<i>Secondary Indicators (2 or more required):</i> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
<p><i>Remarks:</i> *Spotty inundation throughout wetland to 1", but not at pit. 2 - 3" of inundation in area 10 m east of data point 10 m. x 20m. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</p>		

SOILS

Map Unit Name (Series and Phase): _____ Taxonomy (Subgroup): _____	Drainage Class: _____ Field Observations Confirm Mapped Type? Circle Yes No																								
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Depth (inches)</th> <th>Horizon</th> <th>Matrix Color (Munsell Moist)</th> <th>Mottle Colors (Munsell Moist)</th> <th>Mottle Abundance/ Size/Contrast</th> <th>Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0 - 8</td> <td></td> <td>10YR 3/2</td> <td>7.5YR 4/8</td> <td>Few, fine</td> <td>Silty clay loam</td> </tr> <tr> <td>8+</td> <td></td> <td>10YR 5/2</td> <td>7.5YR 4/8</td> <td>Many, coarse</td> <td>Silty clay loam</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5YR 3/4</td> <td>Many, coarse</td> <td>Silty clay loam</td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	0 - 8		10YR 3/2	7.5YR 4/8	Few, fine	Silty clay loam	8+		10YR 5/2	7.5YR 4/8	Many, coarse	Silty clay loam				5YR 3/4	Many, coarse	Silty clay loam
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.																				
0 - 8		10YR 3/2	7.5YR 4/8	Few, fine	Silty clay loam																				
8+		10YR 5/2	7.5YR 4/8	Many, coarse	Silty clay loam																				
			5YR 3/4	Many, coarse	Silty clay loam																				
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input checked="" type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																									
<p><i>Remarks:</i> Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</p>																									

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p><i>Remarks:</i> Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 WIDENING</u>	Date: <u>05/12/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>CLARK</u>
Investigator: <u>TSS, PD</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAI</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAI-DW4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Juncus bufonius</i> (toad rush)	H	FACW	1 <i>Rumex acetosella</i> (common sheep sorrel)	H	FACU-
2			2 <i>Lolium perenne</i> (perennial ryegrass), (<i>L.p. ssp multiflorum</i> = <i>L. multiflorum</i>)	H	FACU
3			3 <i>Trifolium repens</i> (white clover)	H	FAC
4			4 <i>Lotus corniculatus</i> (birdsfoot trefoil)	H	FAC
5			5 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>2*</u> (In.) Depth to Free Water in Pit: <u>11</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patters in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Remarks: * Areas of inundation throughout wetland up to 2" but not where pit is.
 Recent rain.
 Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u>	Drainage Class: <u>MW</u> Circle
Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Field Observations Confirm Mapped Type? No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/1	10YR 4/6	Common/medium/distinct	Silt loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)

Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Remarks: Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u>	Date: <u>05/11/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TSS, CAP</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Nonwetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: <u>SAJ</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAJ-DU1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Anthoxanthum odoratum</i> (sweet vernalgrass)	H	FACU	1 <i>Vicia</i> sp. (vetches) 1	H	
2 <i>Lolium pratense</i> (meadow ryegrass), (<i>Festuca pratensis</i>)	H	FACU+	2 <i>Vicia</i> sp. (vetches) 2	H	
3			3 <i>Plantago lanceolata</i> (narrowleaf plantain)	H	FAC
4			4 <i>Festuca rubra</i> (red fescue)	H	FAC+
5			5 <i>Senecio jacobaea</i> (lansy ragwort)	H	FACU
6			6 <i>Cirsium vulgare</i> (bull thistle)	H	FACU
7			7 UNKNOWN COMPOSITES	H	

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: 50% or less of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus failing to meet the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>0</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>None Observed</u> (In.)	Wetland Hydrology Indicators: <i>Primary Indicators:</i> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patters in Wetlands	<i>Secondary Indicators (2 or more required):</i> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
	Remarks: No Indicators of wetland hydrology were observed, thus failing to meet the wetland hydrology criterion.	

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u>	Drainage Class: <u>MW</u> <i>Circle</i>				
Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Field Observations Confirm Mapped Type? <u>Yes</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-16	A	7.5YR 4/4			Silt loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: No Indicators of hydric soils were observed, thus failing to meet the hydric soils criterion.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks: Area lacks wetland indicators and fails to meet wetland criteria of at least one of the three parameters, and therefore is nonwetland.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u>	Date: <u>05/11/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TSS, CAP</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAJ</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAJ-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Anthoxanthum odoratum</i> (sweet vernalgrass)	H	FACU	1 <i>Juncus effusus</i> (soft rush)	H	FACW
2 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC	2 <i>Juncus sp.</i> (rushes)	H	
3			3 <i>Lolium pratense</i> (meadow ryegrass), (<i>Festuca pratensis</i>)	H	FACU+
4			4 <i>Myosotis discolor</i> (changing forget-me-not),	H	FACW
5			5 <i>Vicia sp.</i> (vetches)	H	
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks: Although the vegetative community was not dominated by hydrophytic species, the strength of the other wetland parameters indicated that wetland conditions were present.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>2</u> (In.) Depth to Free Water in Pit: <u>4</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)</u> (In.)	Wetland Hydrology Indicators: <i>Primary Indicators:</i> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <i>Secondary Indicators (2 or more required):</i> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: It rained the last few days. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.	

SOILS

Map Unit Name (Series and Phase): <u>Hockinson loam</u>	Drainage Class: <u>SWP</u> Circle																								
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquept</u>	Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes																								
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Depth (inches)</th> <th>Horizon</th> <th>Matrix Color (Munsell Moist)</th> <th>Mottle Colors (Munsell Moist)</th> <th>Mottle Abundance/Size/Contrast</th> <th>Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-6</td> <td>10YR 4/1</td> <td>10YR 4/1</td> <td></td> <td></td> <td>Silt loam</td> </tr> <tr> <td>6/14</td> <td>10YR 4/1</td> <td>10YR 4/1</td> <td>7.5YR 4/4</td> <td>Common/fine/distinct</td> <td>Silt loam</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.	0-6	10YR 4/1	10YR 4/1			Silt loam	6/14	10YR 4/1	10YR 4/1	7.5YR 4/4	Common/fine/distinct	Silt loam						
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.																				
0-6	10YR 4/1	10YR 4/1			Silt loam																				
6/14	10YR 4/1	10YR 4/1	7.5YR 4/4	Common/fine/distinct	Silt loam																				
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																									
Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion.																									

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: Strong evidence of wetland hydrology and hydric soils were observed, thus despite the current lack of hydrophytic vegetation, we believe the area is a wetland.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u>	Date: <u>05/11/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TSS, CAP</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAK</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAK-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Anthoxanthum odoratum</i> (sweet vernalgrass)	H	FACU	1 <i>Juncus effusus</i> (soft rush)	H	FACW
2 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC	2 <i>Juncus</i> sp. (rushes)	H	
3 <i>Lolium arundinaceum</i> (tall fescue)	H	FAC-	3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 33%

Remarks: The hydrophytic vegetation criterion was not met, however, the area was determined to be wetland based on the strength of the soils and hydrology parameters.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
<p>Field Observations:</p> Depth of Surface Water: <u>2</u> (In.) Depth to Free Water in Pit: <u>5</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)</u> (In.)	<p>Secondary Indicators (2 or more required):</p> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
<p>Remarks: Indicators of wetland hydrology were observed consistently over an extended period during the growing season at this location (April and May). Based on the strength of the soils and hydrology parameters, this area was determined to be wetland.</p>	

SOILS

Map Unit Name (Series and Phase): <u>Hockinson loam</u>	Drainage Class: <u>SWP</u> Circle																														
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquept</u>	Field Observations Confirm Mapped Type? <u>Yes</u>																														
<p>Profile Description:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Depth (inches)</th> <th>Horizon</th> <th>Matrix Color (Munsell Moist)</th> <th>Mottle Colors (Munsell Moist)</th> <th>Mottle Abundance/Size/Contrast</th> <th>Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-7</td> <td>10YR 4/1</td> <td>10YR 4/1</td> <td></td> <td></td> <td>Silt loam</td> </tr> <tr> <td>7-14</td> <td>10YR 4/1</td> <td>10YR 4/1</td> <td>7.5YR 4/4</td> <td>Common/fine/distinct</td> <td>Silt loam</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.	0-7	10YR 4/1	10YR 4/1			Silt loam	7-14	10YR 4/1	10YR 4/1	7.5YR 4/4	Common/fine/distinct	Silt loam												
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.																										
0-7	10YR 4/1	10YR 4/1			Silt loam																										
7-14	10YR 4/1	10YR 4/1	7.5YR 4/4	Common/fine/distinct	Silt loam																										
<p>Hydric Soil Indicators:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Histosol</td> <td><input type="checkbox"/> Reducing Conditions</td> <td><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils</td> </tr> <tr> <td><input type="checkbox"/> Histic Epipedon</td> <td><input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors</td> <td><input type="checkbox"/> Listed on National Hydric Soils List</td> </tr> <tr> <td><input type="checkbox"/> Sulfidic Odor</td> <td><input type="checkbox"/> Concretions</td> <td><input checked="" type="checkbox"/> Listed on Local Hydric Soils List</td> </tr> <tr> <td><input type="checkbox"/> Aquic Moisture Regime</td> <td><input type="checkbox"/> Organic Streaking in Sandy Soils</td> <td><input type="checkbox"/> Other (explain in remarks)</td> </tr> </table>		<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils	<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List	<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)																		
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<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)																													
<p>Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion</p>																															

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<p>Remarks: Results of our initial site investigation of this wetland revealed that this feature exhibited strong hydric soil and wetland hydrology indicators, but had vegetation that did not meet the hydrophytic vegetation criterion. We repeatedly observed conditions at this location throughout April and May 2005. Chroma 1soils, redoximorphic soil features, dominant and sub-dominant hydrophytes, and a prolonged period of shallow inundation and soil saturation during the growing season (30+ days) provide the basis of our wetland determination at Wetland SAK.</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u>	Date: <u>05/17/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TK, TSS</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Nonwetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAM</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAM-DU1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Anthoxanthum odoratum</i> (sweet vernalgrass)	H	FACU	1 <i>Vicia</i> sp. (vetches)	H	
2 <i>Lolium arundinaceum</i> (tall fescue), NonNative, (<i>Festuca arundinacea</i>) h	H	FAC-	2 <i>Lupinus</i> sp. (lupines)	H	
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: 50% or less of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus failing to meet the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>8</u> (In.) Depth to Saturated Soil: <u>6</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patters in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Remarks: Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.

SOILS

Map Unit Name (Series and Phase): <u>Hockinson loam</u>	Drainage Class: <u>SWP</u> Circle
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquept</u>	Field Observations Confirm Mapped Type? <u>No</u>

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 12	A	10YR 3/3			Silt loam
12+	B	10YR 4/3	10YR 4/4	Many/fine/faint	Silt loam

Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Remarks: No Indicators of hydric soils were observed, thus failing to meet the hydric soils criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
-----------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------

Remarks: Area lacks wetland indicators and fails to meet wetland criteria of at least one of the three parameters, and therefore is nonwetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>TK, TSS</u>	Date: <u>05/17/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAM</u> Plot ID: <u>SAM-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Holcus lanatus</i> (common velvetgrass)	H	FAC	1 <i>Lolium arundinaceum</i> (tall fescue), (<i>Festuca arundinacea</i>)	H	FAC-
2 <i>Anthoxanthum odoratum</i> (sweet vernalgrass)	H	FACU	2 <i>Carex obrupta</i> (slough sedge)	H	OBL
3 <i>Phalaris arundinacea</i> (reed canarygrass)	H	FACW	3 <i>Juncus</i> sp. (rushes) unknown 1	H	
4			4 <i>Juncus</i> sp. (rushes) unknown 2	H	
5			5 <i>Ranunculus acris</i> (tall buttercup)	H	FACW-
6			6 <i>Juncus torreyi</i> (Torrey's rush)	H	FACW
7			7 <i>Poa trivialis</i> (rough bluegrass)	H	FACW

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): $2/3 = 67\%$

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>2*</u> (In.) Depth to Free Water in Pit: <u>0</u> (inun. to surface) (In.) Depth to Saturated Soil: <u>0</u> (sat. to surface) (In.)	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: *Saturated to the surface throughout entire wetland. Areas of surface inundation throughout wetland up to 4". Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.		

SOILS

Map Unit Name (Series and Phase): <u>Hockinson loam</u> Taxonomy (Subgroup): <u>Fluvaquentic Endoaquept</u>	Drainage Class: <u>SWP</u> <i>Circle</i> Field Observations Confirm Mapped Type? <u>Yes</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 10	A	2.5Y 4/1	7.5YR 3/4		Silt loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks: Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u>	Date: <u>05/25/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TK</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAN</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAN-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Ranunculus repens</i> (creeping buttercup)	H	FACW	1		
2 <i>Poa pratensis</i> (Kentucky bluegrass)	H	FAC	2		
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
<p>Secondary Indicators (2 or more required):</p> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)	
<p>Field Observations:</p> <p>Depth of Surface Water: <u>4"</u> (In.) Depth to Free Water in Pit: <u>0 (inun. to surface)</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)</u> (In.)</p>	
<p>Remarks: <u>Various depths of inundation were observed throughout the wetland. The wetland appears to drain into wetland SAM. Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u></p>	

SOILS

Map Unit Name (Series and Phase): <u>Hockinson loam</u>	Drainage Class: <u>SWP</u> <i>Circle</i>				
Taxonomy (Subgroup): <u>Fluvaquentic Endoaquept</u>	Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-7	A	10YR 3/2			Sil
7-16	B	10YR 4/2	7.5YR 4/6	Many/coarse/prominent	Sil
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: <u>Emergent wetland. The wetland was being used to store yard debris. Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u>	Date: <u>05/24/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TK, TSS</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Nonwetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SAO</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SAO-DU1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <u>Anthoxanthum odoratum (sweet vernalgrass)</u>	H	FACU	1		
2 <u>Lolium arundinaceum (tall fescue)</u>	H	FAC-	2		
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: 50% or less of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus failing to meet the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	<p style="text-align: center;">Wetland Hydrology Indicators:</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><i>Primary Indicators:</i></p> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands </td> <td style="width: 50%; vertical-align: top;"> <p><i>Secondary Indicators (2 or more required):</i></p> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks) </td> </tr> </table>	<p><i>Primary Indicators:</i></p> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	<p><i>Secondary Indicators (2 or more required):</i></p> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
<p><i>Primary Indicators:</i></p> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	<p><i>Secondary Indicators (2 or more required):</i></p> <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)		
<p>Field Observations:</p> Depth of Surface Water: <u>None</u> (In.) Depth to Free Water in Pit: <u>16</u> (In.) Depth to Saturated Soil: <u>14</u> (In.)			
Remarks: <u>No Indicators of wetland hydrology were observed, thus failing to meet the wetland hydrology criterion.</u>			

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u>	Drainage Class: <u>MW</u> Circle																		
Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Field Observations Confirm Mapped Type? No																		
<p>Profile Description:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Depth (inches)</th> <th style="width: 10%;">Horizon</th> <th style="width: 20%;">Matrix Color (Munsell Moist)</th> <th style="width: 20%;">Mottle Colors (Munsell Moist)</th> <th style="width: 20%;">Mottle Abundance/Size/Contrast</th> <th style="width: 10%;">Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-10</td> <td>A</td> <td>10YR 4/3</td> <td>10YR 3/3</td> <td>Fine/common/faint</td> <td>Silt loam</td> </tr> <tr> <td>10-18</td> <td>B</td> <td>10YR 3/3</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.	0-10	A	10YR 4/3	10YR 3/3	Fine/common/faint	Silt loam	10-18	B	10YR 3/3			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.														
0-10	A	10YR 4/3	10YR 3/3	Fine/common/faint	Silt loam														
10-18	B	10YR 3/3																	
<p>Hydric Soil Indicators:</p> <table style="width: 100%;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input checked="" type="checkbox"/> Aquic Moisture Regime </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks) </td> </tr> </table>		<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)															
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																	
Remarks: <u>No Indicators of hydric soils were observed, thus failing to meet the hydric soils criterion.</u>																			

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks: <u>Area lacks wetland indicators and fails to meet wetland criteria of at least one of the three parameters, and therefore is nonwetland.</u>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502 Widening</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>TK, TSS</u>	Date: <u>05/24/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAO</u> Plot ID: <u>SAO-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Alopecurus pratensis</i> (meadow foxtail)	Herb	FACW	1		
2 <i>Lolium arundinaceum</i> (tall fescue)	Herb	FAC-	2		
3 <i>Holcus lanatus</i> (common velvetgrass)	Herb	FAC	3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 2/3 = 67%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: <u>None</u> (In.) Depth to Free Water in Pit: <u>2</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)</u> (In.)	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)

Remarks: Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u> Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Drainage Class: <u>MW</u> Circle Field Observations Confirm Mapped Type? No																								
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Depth (inches)</th> <th>Horizon</th> <th>Matrix Color (Munsell Moist)</th> <th>Mottle Colors (Munsell Moist)</th> <th>Mottle Abundance/Size/Contrast</th> <th>Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-4</td> <td>A</td> <td>10YR 4/2</td> <td></td> <td></td> <td>Silt loam</td> </tr> <tr> <td>4-12</td> <td>B</td> <td>10YR 4/2</td> <td>7.5YR 4/6</td> <td>Many/coarse/prominent</td> <td>Silt loam</td> </tr> <tr> <td>12-18</td> <td>B</td> <td>10YR 4/1</td> <td>7.5YR 4/6</td> <td>Many/coarse prominent</td> <td>Silt loam</td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.	0-4	A	10YR 4/2			Silt loam	4-12	B	10YR 4/2	7.5YR 4/6	Many/coarse/prominent	Silt loam	12-18	B	10YR 4/1	7.5YR 4/6	Many/coarse prominent	Silt loam
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.																				
0-4	A	10YR 4/2			Silt loam																				
4-12	B	10YR 4/2	7.5YR 4/6	Many/coarse/prominent	Silt loam																				
12-18	B	10YR 4/1	7.5YR 4/6	Many/coarse prominent	Silt loam																				
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime																									
<input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils																									
<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																									

Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks: Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>CAP, TSS</u>	Date: <u>05/26/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SAP</u> Plot ID: <u>SAP-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Non-Dominant Plant Species	Stratum	Indicator
1 <i>Alopecurus pratensis</i> (meadow foxtail)	H	FACW	1 <i>Lolium arundinaceum</i> (tall fescue) (<i>Festuca arundinacea</i>)	H	FAC-
2 <i>Phalaris arundinacea</i> (reed canarygrass)	H	FACW	2 <i>Rumex crispus</i> (curly dock)	H	FAC+
3 <i>Alopecurus geniculatus</i> (water foxtail)	H	OBL	3 <i>Cirsium vulgare</i> (bull thistle)	H	FACU
4			4 <i>Populus tremuloides</i> (quaking aspen)	H	FAC+
5			5 <i>Polygonum</i> sp. (knotweeds or smartweeds)	H	
6			6 <i>Plantago lanceolata</i> (narrowleaf plantain)	H	FAC
7			7 <i>Taraxacum officinale</i> (common dandelion)	H	FACU
			8 <i>Geranium robertianum</i> (stinky Bob)	H	NL
			9 <i>Trifolium repens</i> (white clover)	H	FAC
			10 <i>Lolium perenne</i> (perennial ryegrass), (<i>L. ssp multiflorum</i> = <i>L. multiflorum</i>)	H	FACU

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>0*</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>0 (sat. to surface)**</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: * inundated to 2" in a few areas of wetland, but not throughout and not at datapoint. ** water entering hole from recent rain and saturating upper 4" Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.		

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u> Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Drainage Class: <u>MW</u> Circle Field Observations Confirm Mapped Type? <u>No</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 4	A	10YR 3/2			Loam
4 +	A2	10YR 4/2	5YR 4/4	Common/medium/distinct	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Concretions <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Other (explain in remarks)					
Remarks: Indicators of hydric soils were observed, thus meeting the hydric soils criterion.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks: Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u> Applicant/Owner: <u>Washington State Department of Transportation</u> Investigator: <u>TDK</u>	Date: <u>4/5/05</u> County: <u>Clark</u> State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>Wetland</u> Transect ID: <u>SWD1</u> Plot ID: <u>SWD1-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Phalaris arundinacea</i> (reed canarygrass)	Herb	FACW	1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patters in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>0</u> (In.) Depth to Free Water in Pit: <u>6</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)		
Remarks: <u>Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u>		

SOILS

Map Unit Name (Series and Phase): <u>Gee silt loam</u> Taxonomy (Subgroup): <u>Typic Glossudalf</u>	Drainage Class: <u>MW</u> <i>Circle</i> Field Observations Confirm Mapped Type? <u>No</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 3/2			Gravelly sand
3+	B	2.5Y 4/1	7.5YR 4/6	Common/medium/prominent	Silty clay loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks: <u>Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u>	Date: <u>3/16/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TDK</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SWD2</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SWD2-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Phalaris arundinacea (reed canarygrass)</u>	Herb	FACW	1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patters in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>0</u> (In.) Depth to Free Water in Pit: <u>4</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)		
Remarks: <u>Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u>		

SOILS

Map Unit Name (Series and Phase): <u>Hesson clay loam</u>	Drainage Class: <u>W</u> Circle																		
Taxonomy (Subgroup): <u>Xeric Palehumult</u>	Field Observations Confirm Mapped Type? <u>No</u>																		
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Depth (inches)</th> <th style="width: 15%;">Horizon</th> <th style="width: 15%;">Matrix Color (Munsell Moist)</th> <th style="width: 15%;">Mottle Colors (Munsell Moist)</th> <th style="width: 15%;">Mottle Abundance/ Size/Contrast</th> <th style="width: 20%;">Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-4</td> <td>A</td> <td>10YR 4/2</td> <td></td> <td></td> <td>Silt loam</td> </tr> <tr> <td>4+</td> <td>B</td> <td>2.5Y 4/1</td> <td>7.5YR 4/6</td> <td>Common/medium/prominent</td> <td>Silty clay loam</td> </tr> </tbody> </table>		Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	0-4	A	10YR 4/2			Silt loam	4+	B	2.5Y 4/1	7.5YR 4/6	Common/medium/prominent	Silty clay loam
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.														
0-4	A	10YR 4/2			Silt loam														
4+	B	2.5Y 4/1	7.5YR 4/6	Common/medium/prominent	Silty clay loam														
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																			
Remarks: <u>Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>																			

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: <u>Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>		

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u>	Date: <u>3/16/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TDK</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SWD3</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SWD3-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Populus balsamifera</i> (black cottonwood)	H	FAC	1		
2 <i>Fraxinus latifolia</i> (Oregon ash)	T	FACW	2		
3 <i>Phalaris arundinacea</i> (reed canarygrass)	H	FACW	3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>6</u> (In.) Depth to Free Water in Pit: <u>surface</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)	
Remarks: <u>Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Hesson clay loam</u>	Drainage Class: <u>W</u> Circle																		
Taxonomy (Subgroup): <u>Xeric Palehumult</u>	Field Observations Confirm Mapped Type? <u>No</u>																		
Profile Description: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Depth (Inches)</th> <th style="width: 10%;">Horizon</th> <th style="width: 15%;">Matrix Color (Munsell Moist)</th> <th style="width: 15%;">Mottle Colors (Munsell Moist)</th> <th style="width: 15%;">Mottle Abundance/ Size/Contrast</th> <th style="width: 35%;">Texture, Concretions, Structure, etc.</th> </tr> </thead> <tbody> <tr> <td>0-3</td> <td>A</td> <td>10YR 5/1</td> <td>10YR 5/6</td> <td></td> <td>Silty clay loam</td> </tr> <tr> <td>3-16+</td> <td>B</td> <td>10YR 5/1</td> <td>10YR 5/8</td> <td>Common, medium</td> <td>Silty clay loam</td> </tr> </tbody> </table>		Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	0-3	A	10YR 5/1	10YR 5/6		Silty clay loam	3-16+	B	10YR 5/1	10YR 5/8	Common, medium	Silty clay loam
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.														
0-3	A	10YR 5/1	10YR 5/6		Silty clay loam														
3-16+	B	10YR 5/1	10YR 5/8	Common, medium	Silty clay loam														
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)																			
Remarks: <u>Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>																			

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: <u>Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site: <u>SR 502</u>	Date: <u>5/19/05</u>
Applicant/Owner: <u>Washington State Department of Transportation</u>	County: <u>Clark</u>
Investigator: <u>TDK</u>	State: <u>WA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SWD4</u>
Is Area a Potential Problem Area? (if needed, explain on reverse) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>SWD4-DW1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <i>Phalaris arundinacea</i> (reed canarygrass)	Herb	FACW	1		
2 <i>Spirea douglasii</i> (hardhack)	Herb	FACW	2		
3			3		
4			4		
5			5		
6			6		
7			7		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: More than 50% of the dominant species have an indicator status of OBL, FACW, and/or FAC, thus meeting the hydrophytic vegetation criterion.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patters in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>4</u> (In.) Depth to Free Water in Pit: <u>surface</u> (In.) Depth to Saturated Soil: <u>surface</u> (In.)		
Remarks: <u>Indicators of wetland hydrology were observed, thus meeting the wetland hydrology criterion.</u>		

SOILS

Map Unit Name (Series and Phase): <u>Dollar loam</u>	Drainage Class: <u>MW</u> Circle				
Taxonomy (Subgroup): <u>Humic Fragixerept</u>	Field Observations Confirm Mapped Type? <u>No</u>				
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3	A	2.5Y 3/1			Silt loam
3-16+	B	2.5Y 4/2	7.5YR 4/6	Common/fine/distinct	Silt loam
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			
Remarks: <u>Indicators of hydric soils were observed, thus meeting the hydric soils criterion.</u>					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: <u>Area has wetland indicators and meets wetland criteria of all three parameters, and therefore is wetland.</u>					