

APPENDIX C
PROJECT AREA WETLAND DATA FORMS

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 1 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Stinging nettle (<i>Urtica dioica</i>)	H	40	FAC+*				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40	FAC*				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	5	FACW				
Canada thistle (<i>Cirsium arvense</i>)	H	5	FACU+				
Tiny vetch (<i>Vicia hirsuta</i>)	H	5	NI				
Rye grass (<i>Lolium perenne</i>)	H	5	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Walnut, apple, pear orchard adjacent to blackberry road cut.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: No Indicators

SOILS
 Map Unit Name (Series and Phase) : Birch Bay Drainage Class Moderately well drained
 Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-4	A1	10YR2/2			Loam	
4-9	B1	7.5YR3/3			Silty loam	
9+16+	B3	7.5 YR3/4			Silty clay loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma \leq 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks: No indicators

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks: Located near an abandoned orchard at an old home site

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 2 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Himalayan blackberry (<i>Rubus discolor</i>)	S	35*	FACU				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40*	FAC				
Birds-foot trefoil (<i>Lotus corniculatus</i>)	H	10	FAC				
Canada thistle (<i>Cirsium arvense</i>)	H	10	FACU+				
Tiny vetch (<i>Vicia hirsuta</i>)	H	3	NI				
Bull thistle (<i>Cirsium vulgare</i>)	H	2	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Hydrophytic species do not exceed 50%

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: No indicators

SOILS
 Map Unit Name (Series and Phase) : Birch Bay Drainage Class Moderately well drained
 Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? X Yes No

Profile Description						Drawing of soil profile (<u>match description</u>)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-11	A1	10YR3/4			Charcoal	
11-13	B1	7.5YR2.5/3				
13+	B3	7.5 YR2.5/2				

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks: No indicators

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks: Taken just on upland side of line

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 3 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Soft rush (<i>Juncus effusus</i>)	H	30*	FACW	Himalayan blackberry (<i>Rubus discolor</i>)	S	25*	FACU
Quackgrass (<i>Agropyron repens</i>)	H	5	FAC-				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	20*	FAC				
Giant horsetail (<i>Equisetum telmateia</i>)	H	5	FACW				
Canada thistle (<i>Cirsium arvense</i>)	H	5	FACU+				
Birds-foot trefoil (<i>Lotus corniculatus</i>)	H	10	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 66%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: On upland knoll; still hummocky.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 3 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 0 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks: Saturated at time of site visit

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly Drained
 Taxonomy (subgroup) Umbracqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-8	A1	10YR2/2			Silt loam	
8-12+	B1	7.5YR2.5/2 and 10YR4/2	2.5Y5/2 and 10YR5/2	Common, medium, distinct	Silty clay loam	

Hydric Soil Indicators: (check all that apply)

<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 Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: mottles @ 8" Standing water at 3".

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Reed canary Transect ID: Plot ID: Plot 4 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	100	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: 100% Reed canary grass.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 8 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 5 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Bentgrass Transect ID: Plot ID: Plot 5 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	90*	FAC				
Soft rush (<i>Juncus effusus</i>)	H	5	FACW				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	5	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Water Marks: Yes No
on

Drift Lines: Yes No

Sediment Deposits: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: 0 inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 0 inches

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Upland Plot Transect ID: Plot ID: Plot 6 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	80*	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	15*	FACU				
Bare ground		5					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: slight rise in elevation

SOILS
 Map Unit Name (Series and Phase) : Birch Bay Drainage Class Mod. Well drained
 Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-10	A	7.5YR3/3			SiL	
10-16	B	7.5YR 4/4	7.5YR 3/2	Common	SiL	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	---

Hydric soils present? Yes No
 Rationale for decision/Remarks: chroma too bright even though it has mottles

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks: FAC species present, but not wetland based on soils and hydrology.

NOTES: Taken at wetland edge. Sample plot taken at edge of gradual rise in elevatio. Plot just upslope of wetland edge.

Revised 4/97

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 7 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	45*	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	20*	FACU				
Birds-foot trefoil (<i>Lotus corniculatus</i>)	H	10	FAC				
Canada thistle (<i>Cirsium arvense</i>)	H	10	FACU+				
Tall fescue (<i>Festuca arundinacea</i>)	H	5	FACU+				
Soft rush (<i>Juncus effusus</i>)	H	10	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: best professional judgment. Taken at wetland edge – just on wet side of line

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 3 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 3 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks: Saturated at 3"

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-9	A	2.5YR3/2			SiL	
9-10+	B	2.5Y5/2	2.5Y6/4	Common, small, dist	SiL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	---

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Cemented layer ~10" could not sample deeper; sulfide at 10".

Wetland Determination

Hydrophytic vegetation present?	X Yes	<input type="checkbox"/> No
Hydric soils present?	x Yes	<input type="checkbox"/> No
Wetland hydrology present?	x Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	x Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Upland Transect ID: Plot ID: Plot 8 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	50*	FAC	Slough sedge (<i>Carex obnupta</i>)	H	2	OBL
Himalayan blackberry (<i>Rubus discolor</i>)	S	15*	FACU	Bare Ground		3	
Vernal sweetgrass (<i>Anthoxanthum odoratum</i>)	H	10	FACU				
Velvetgrass (<i>Holcus lanatus</i>)	H	7	FAC				
Red top (<i>Agrostis alba</i>)	H	8	FAC				
Soft rush (<i>Juncus effusus</i>)	H	5	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Upland adjacent to blackberries.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: No indicators

SOILS
 Map Unit Name (Series and Phase) : Birch Bay Drainage Class mod well drained
 Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-12	A	10YR3/2			Silty loam	
12+	B	10YR3/2			Silty clay loam	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks: Charcoal within 10".

Wetland Determination

Hydrophytic vegetation present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Hydric soils present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland hydrology present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the sampling point within a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 9 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	50*	FAC				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	10	FACW				
Soft rush (<i>Juncus effusus</i>)	H	20*	FACW				
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	10	FAC				
Bare Ground		5					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 6 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 3 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 10 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Common plantain (<i>Plantago major</i>)	H	20*	FACU+				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	50*	FAC				
Iris (<i>Iris missouriensis</i>)	H	5	FACW+				
Red top (<i>Agrostis alba</i>)	H	20*	FAC				
Bare ground		5					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 66%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes **X**No
 Rationale for decision/remarks: Not saturated, but moist.

SOILS
 Map Unit Name (Series and Phase) : Birch Bay Drainage Class mod well drained
 Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-10+	A	7.5YR3/3				

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? Yes **x**No
 Rationale for decision/Remarks: No rhizospheres; Charcoal; Soil chroma too bright at 10 inches.

Wetland Determination

Hydrophytic vegetation present?	x Yes	<input type="checkbox"/> No
Hydric soils present?	<input type="checkbox"/> Yes	x No
Wetland hydrology present?	<input type="checkbox"/> Yes	x No
Is the sampling point within a wetland?	<input type="checkbox"/> Yes	x No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 11 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Birds-foot trefoil (<i>Lotus corniculatus</i>)	H	20	FAC	Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC
Reed canarygrass (<i>Phalaris arundinacea</i>)	H	25	FACW				
Slough sedge (<i>Carex obnupta</i>)	H	20	OBL				
Red top (<i>Agrostis alba</i>)	H	10	FAC				
Soft rush (<i>Juncus effusus</i>)	H	10	FACW				
Rough bluegrass (<i>Poa trivialis</i>)	H	10	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 1 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 0 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 12 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Birds-foot trefoil (<i>Lotus corniculatus</i>)	H	20	FAC	Soft rush (<i>Juncus effusus</i>)	H	10	FACW
Red top (<i>Agrostis alba</i>)	H	20	FAC				
Canada thistle (<i>Cirsium arvense</i>)	H	10	FACU+				
Bittersweet nightshade (<i>Solanum dulcamara</i>)	H	10	FAC+				
English plantain (<i>Plantago lanceolata</i>)	H	15	FAC				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	15	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Douglas fir on edge; Evenly dispersed species.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 8 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 8 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-8	A	7.5YR3/2				
8-14	B	10YR3/2	10YR 4/6	Few, fine, faint	SiL	

Hydric Soil Indicators: (check all that apply)

<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 type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Cemented layer at 14"; Marginal but has hint of mottling. Recently wet due to plugged drainage ditch

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 13 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Soft rush (<i>Juncus effusus</i>)	H	35*	FACW				
Tiny vetch (<i>Vicia hirsuta</i>)	H	5	NI				
Red clover (<i>Trifolium pratense</i>)	H	5	FACU				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	30*	FAC				
Black cottonwood (<i>Populus trichocarpa</i>)	T	10*	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	15*	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Near cottonwood plantation; NE corner of property.

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: 10 inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 10 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-10	A	10YR2/2			Mg, SiL	
10-14+	B	2.5Y4/2	10YR4/6	Common, medium, distinct	SiL	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Magnesium concretions; hydric soils at 10".

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 14 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	40*	FACW	Evergreen blackberry (<i>Rubus laciniatus</i>)	S	10	FACU+
Himalayan blackberry (<i>Rubus discolor</i>)	S	15*	FACU				
Red alder (<i>Alnus rubra</i>)	T	10*	FAC				
Black cottonwood (<i>Populus trichocarpa</i>)	T	5*	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	10	FAC				
Rough bluegrass (<i>Poa trivialis</i>)	H	10	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Vegetation marginal.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No

Rationale for decision/remarks: Upland; Approximately 1 foot rise in elevation causing upland conditions.

SOILS

Map Unit Name (Series and Phase) : Birch Bay Drainage Class mod well drained

Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-8	A	7.5YR3/3			Silty clay loam	
8-14	B	10YR3/3			Clay loam	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No

Rationale for decision/Remarks: Earthworms and many roots.

Wetland Determination

Hydrophytic vegetation present? Yes No

Hydric soils present? Yes No

Wetland hydrology present? Yes No

Is the sampling point within a wetland? Yes No

Rationale/Remarks: Sampling point on marginal edge.

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 15 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Soft rush (<i>Juncus effusus</i>)	H	30	FACW				
Red top (<i>Agrostis alba</i>)	H	15	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	25	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	10	FAC				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	20	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Herbaceous hydrophytic vegetation in center of property.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 10 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 6 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 16 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Black cottonwood (<i>Populus trichocarpa</i>)	T	15	FAC*	Red clover (<i>Trifolium pratense</i>)	H	10	FACU
Himalayan blackberry (<i>Rubus discolor</i>)	S	10	FACU*				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	30	FAC*				
Moss		5					
Bluegrass (<i>Poa pratensis</i>)	H	20	FAC*				
Canada thistle (<i>Cirsium arvense</i>)	H	10	FACU+				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Cottonwood overstory.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 4 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 2 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks: Filled to within 4 inches of surface in 2 minutes.

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (<u>match description</u>)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-10+	A	10YR2/1	2.5Y4/6	Few	Silty, clay loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Cemented layer at 10"; charcoal; gravel decomposition.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 17 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Rough bluegrass (<i>Poa trivialis</i>)	H	20*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40*	FAC				
Soft rush (<i>Juncus effusus</i>)	H	30*	FACW				
Himalayan blackberry (<i>Rubus discolor</i>)	S	10	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Depth of inundation: inches

Depth to free water in pit: 4 inches

Depth to saturated soil: 3 inches

Water Marks: Yes No

Drift Lines: Yes No

Oxidized Root (live roots)
Channels <12in.: Yes No

FAC Neutral: Yes No

Sediment Deposits: Yes No

Drainage Patterns: Yes No

Local Soil Survey: Yes No

Water-stained Leaves:
 Yes No

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks: Soil was saturated

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbracqualls Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (<u>match description</u>)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, structure, etc.	
0-8	A	7.5YR3/1			SiL	
8-14	B	7.5YR2.5/2	7.5YR 4/8	Few, small, distinct	Silty, clay loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 18 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Stinging nettle (<i>Urtica dioica</i>)	H	10*	FAC+	Alaska cedar (<i>Chamaecyparis nootkatensis</i>)	T	5	FAC
Salmonberry (<i>Rubus spectabilis</i>)	S	10*	FAC+	Paper birch (<i>Betula papyrifera</i>)	T	10*	FAC
Bleeding heart (<i>Dicentra formosa</i>)	H	10*	FACU	Bare ground		30	
Indian plum (<i>Oemleria cerasiformis</i>)	S	10*	FACU				
Moss		5					
Piggy-back plant (<i>Tolmiea menziesii</i>)	H	10*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 66% Co-dominants - more FAC than FACU.

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Wetland plot adjacent to upland in forested section; Mapped uplands with "M" Flags.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 6 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 4 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-8	A	7.5YR2.5/1	2.5Y5/4 and 10YR4/6	Common, Medium Distinct	SiL	
8+		7.5YR 5/1	10YR 4/6	Many, medium, distinct	SiL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 19 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Stinging nettle (<i>Urtica dioica</i>)	H	10*	FAC+	Alaska cedar (<i>Chamaecyparis nootkatensis</i>)	T	30*	FAC
Salmonberry (<i>Rubus spectabilis</i>)	S	15*	FAC+	Paper birch (<i>Betula papyrifera</i>)	T	10*	FAC
Himalayan blackberry (<i>Rubus discolor</i>)	S	5	FACU				
Indian plum (<i>Oemleria cerasiformis</i>)	S	10*	FACU				
Twinberry (<i>Lonicera involucrata</i>)	S	10*	FAC+				
Oceanspray (<i>Holodiscus discolor</i>)	S	10*	NI				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 71%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Marginal wetland vegetation; Co-dominant species mix of FAC and FACU.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-12	A	10YR3/4				

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks: Plot adjacent to cedar - roots caused refusal at 2"; Example of tree root structure in wet environment.

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks: small upland island within mapped wetland

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Upland Forest Transect ID: Plot ID: Plot 20 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)							
Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Snowberry (<i>Symphoricarpos albus</i>)	S	30*	FACU				
Indian plum (<i>Oemleria cerasiformis</i>)	S	20*	FACU				
Bluegrass (<i>Poa pratensis</i>)	H	10*	FAC				
Leaf litter		20					
Alaska cedar (<i>Chamaecyparis nootkatensis</i>)	T	10*	FAC				
Paper birch (<i>Betula papyrifera</i>)	T	10*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 60%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY		
Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: Yes <input checked="" type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: Slightly higher topography

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class mod poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-6	A	10YR3/3	7.5YR4/6	Common		
6-12+	B	10YR3/4				

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks: matrix has a high chroma

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks: Taken on upland side of the line

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Cottonwood Patch Transect ID: Plot ID: Plot 21 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Black cottonwood (<i>Populus trichocarpa</i>)	T	30*	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	10*	FACU				
Bluegrass (<i>Poa pratensis</i>)	H	10	FAC				
Giant horsetail (<i>Equisetum telmateia</i>)	H	20*	FACW				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	20*	FACW				
Slough sedge (<i>Carex obnupta</i>)	H	10	OBL				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: _____ inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: 2 inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 0 inches

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 22 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Black cottonwood (<i>Populus trichocarpa</i>)	T	15*	FAC				
Indian plum (<i>Oemleria cerasiformis</i>)	S	5	FACU				
Bluegrass (<i>Poa pratensis</i>)	H	20*	FAC				
Creeping buttercup (<i>Ranunculus repens</i>)	H	45*	FACW				
Moss		15					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Transect along cottonwoods showing changing soil types, but persistent hydric characteristics.

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: 4 inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 2 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: Moist

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-9	A	7.5YR3/2			SiL	
9-14+	B	2.5Y5/4	2.5Y6/8	Few, medium, distinct	SiL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? Yes No
 Rationale for decision/Remarks: Obvious gravel decomposition; Mixing of soil layers.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 23 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Orchard grass (<i>Dactylis glomerata</i>)	H	10	FACU				
Velvetgrass (<i>Holcus lanatus</i>)	H	20*	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	10	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	50*	FAC				
Canada thistle (<i>Cirsium arvense</i>)	H	10	FACU+				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Grass pasture adjacent to cottonwood line by forested patch.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 8 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 2 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-12+	A	10YR2/1	2.5Y5/2	Few, m,d	SiL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Cemented layer at ~12 inches; High organic composition.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 24 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Soft rush (<i>Juncus effusus</i>)	H	30*	FACW				
Bluegrass (<i>Poa pratensis</i>)	H	15	FAC				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	30*	FACW				
Red top (<i>Agrostis alba</i>)	H	25*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Grass pasture adjacent to cottonwood line by forested patch.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 10 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 4 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: saturated

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbracqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-10+	A	10YR2.5/1	7.5YR5/8	Few, small, distinct	SiL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks: Very fine mottles.

Wetland Determination

Hydrophytic vegetation present?	X Yes	<input type="checkbox"/> No
Hydric soils present?	X Yes	<input type="checkbox"/> No
Wetland hydrology present?	X Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	x Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 25 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Canada thistle (<i>Cirsium arvense</i>)	H	15*	FACU+				
Bluegrass (<i>Poa pratensis</i>)	H	10*	FAC				
Black cottonwood (<i>Populus trichocarpa</i>)	T	45*	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	15*	FAC				
Indian plum (<i>Oemleria cerasiformis</i>)	S	15*	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 80%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
Yes No

Depth to saturated soil: inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: No hydrology; Dry soils compared to similar colors elsewhere.

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-10+	A	7.5YR3/1	2.5Y5/2			

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	---

Hydric soils present? Yes No
 Rationale for decision/Remarks: Marginal; Cemented at 10 inches, but not holding water.

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks: Marginal conditions; Determination based on hydrology change. This data point is outside project impact area.

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 26 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Snowberry (<i>Symphoricarpos albus</i>)	S	20*	FACU	Bluegrass (<i>Poa pratensis</i>)	H	2	FAC
Salmonberry (<i>Rubus spectabilis</i>)	S	20*	FAC+	Dandelion (<i>Taraxacum officinale</i>)	H	2	FACU
Himalayan blackberry (<i>Rubus discolor</i>)	S	15	FACU	Sword fern (<i>Polystichum munitum</i>)	H	10*	FACU
Red alder (<i>Alnus rubra</i>)	T	10*	FAC	Bare ground		1	
Paper birch (<i>Betula papyrifera</i>)	T	10*	FAC				
Indian plum (<i>Oemleria cerasiformis</i>)	S	10	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 60%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 27 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Snowberry (<i>Symphoricarpos albus</i>)	S	20*	FACU	Bluegrass (<i>Poa pratensis</i>)	H	10*	FAC
Oceanspray (<i>Holodiscus discolor</i>)	S	20*	NI	<i>Abies grandis</i>	T	10*	FACU
Vine maple (<i>Acer circinatum</i>)	S	5	FAC-	Western red cedar (<i>Thuja plicata</i>)	T	5	FAC
Red alder (<i>Alnus rubra</i>)	T	10*	FAC				
Paper birch (<i>Betula papyrifera</i>)	T	15*	FAC				
Bleeding heart (<i>Dicentra formosa</i>)	H	5	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes X No

Rationale for decision/Remarks: Mosaic wetland/upland in forested area - pockets of depressions in topography. Wet area nearly bare. Veg represents all within normal radius

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 4 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 28 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Twinberry (<i>Lonicera involucrata</i>)	S	30*	FAC+	Devil's club (<i>Oplopanax horridus</i>)	S	5	FAC+
Salmonberry (<i>Rubus spectabilis</i>)	S	25*	FAC+	Bare ground		5	
Black cottonwood (<i>Populus trichocarpa</i>)	T	10*	FAC				
Bleeding heart (<i>Dicentra formosa</i>)	H	5	FACU				
Douglas-fir (<i>Pseudotsuga menziesii</i>)	T	10*	FACU				
Himalayan blackberry (<i>Rubus discolor</i>)	S	10	FACU				

HYDROPHYTIC VEGETATION INDICATORS: 50%

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Depression within forested upland. Most of veg rooted outside the edge of the depression.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 2 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-3	A	10YR3/1				

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Roots stopped shovel test at 3 inches. Could not get a deeper sample, impervious layer

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-3-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 29 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Birds-foot trefoil (<i>Lotus corniculatus</i>)	H	20*	FAC	Piggy-back plant (<i>Tolmiea menziesii</i>)	H	2	FAC+
Salmonberry (<i>Rubus spectabilis</i>)	S	20*	FAC+	Alaska cedar (<i>Chamaecyparis nootkatensis</i>)	T	15*	FAC*
Stinging nettle (<i>Urtica dioica</i>)	H	10*	FAC+	Paper birch (<i>Betula papyrifera</i>)	T	15*	FAC*
Bleeding heart (<i>Dicentra formosa</i>)	H	5	FACU	Bare ground		1	
Indian plum (<i>Oemleria cerasiformis</i>)	S	10*	FACU				
Moss		2					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 83%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: 6 inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 4 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-10	A	7.5YR2.5/1	2.5Y5/4/ 10YR 4/6	Common, medium, dist	Silty loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: cemented layer at 10 inches. Could not get a deeper sample

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 30 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Douglas-fir (<i>Pseudotsuga menziesii</i>)	T	25*	FACU				
Himalayan blackberry (<i>Rubus discolor</i>)	S	25*	FACU				
Canada thistle (<i>Cirsium arvense</i>)	H	10*	FACU+				
Black cottonwood (<i>Populus trichocarpa</i>)	T	15	FAC				
<i>Agrostis tenuis</i>	H	25*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 25%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks: Dry soil. No indicators

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-11	A	10YR3/4			SiL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks: Cemented layer at 10 inches. Bright chroma

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES: Within forested area (associated with Wetland E), south of plant site. Survey plots not picked up by surveyors.
 Revised 4/97

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 31 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)							
Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40*	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	20*	FACU				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	20*	FACW				
Bluegrass (<i>Poa pratensis</i>)	H	20	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: FAC vegetation present but no hydrology.

HYDROLOGY		
Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 32 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)							
Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	30*	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	15*	FACU				
Red alder (<i>Alnus rubra</i>)	T	35*	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	10*	FAC				
Black cottonwood (<i>Populus trichocarpa</i>)	T	10*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 80%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY		
Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 10 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 10 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-10	A	7.5YR3/1	2.5Y5/2			

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Cemented layer at 10 inches. Could not get deeper sample

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES: Within forested area (associated with Wetland E), south of plant site. Survey plots not picked up by surveyors.

Revised 4/97

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 33 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	65*	FACW				
Himalayan blackberry (<i>Rubus discolor</i>)	S	T	FACU				
Soft rush (<i>Juncus effusus</i>)	H	5	FACW				
Bluegrass (<i>Poa pratensis</i>)	H	15	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 4 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 3 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 5-4-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 34 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	50*	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	40*	FACU				
Douglas-fir (<i>Pseudotsuga menziesii</i>)	T	10*	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 33%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes x **No**
 Rationale for decision/remarks: Small topographic break - about 12" higher than surrounding area.

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-10+	A	10YR3/3				

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes x **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** x **No**
 Hydric soils present? **Yes** x **No**
 Wetland hydrology present? **Yes** x **No**
 Is the sampling point within a wetland? **Yes** x **No**

Rationale/Remarks:

NOTES: Within forested area (associated with Wetland E), south of plant site. Survey plots not picked up by surveyors.
 Revised 4/97

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 35 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Creeping buttercup (<i>Ranunculus repens</i>)	H	80*	FACW	Black cottonwood (<i>Populus trichocarpa</i>)	T	7 (Canopy)	FAC
Evergreen blackberry (<i>Rubus laciniatus</i>)	S	2	FACU+				
Bluegrass (<i>Poa pratensis</i>)	H	4	FAC				
Orchard grass (<i>Dactylis glomerata</i>)	H	2	FACU				
Bull thistle (<i>Cirsium vulgare</i>)	H	2	FACU				
Tiny vetch (<i>Vicia hirsuta</i>)	H	3	NI				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Forested cottonwood area.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 36 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Creeping buttercup (<i>Ranunculus repens</i>)	H	30*	FACW	Bare ground		1	
Reed canary grass (<i>Phalaris arundinacea</i>)	H	30*	FACW				
Bluegrass (<i>Poa pratensis</i>)	H	2	FAC				
Soft rush (<i>Juncus effusus</i>)	H	5	FACW				
Bull thistle (<i>Cirsium vulgare</i>)	H	2	FACU				
Black cottonwood (<i>Populus trichocarpa</i>)	T	30*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Within former cottonwood farm area.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-10+	A	7.5YR2.5/2	10YR 4/3	fmd	Sil	

Hydric Soil Indicators: (check all that apply)

<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 Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	---

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Cemented layer at 10". Mottling starts at 9", cemented layer prevented deeper sample

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 37 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Juncus effusus</i> (soft rush)	H	5	FACW				
<i>Lotus corniculatus</i> (Bird's foot trefoil)	H	5	FAC				
<i>Agrostis tenuis</i> (Slender bentgrass)	H	80	FAC				
<i>Agropyron repens</i> (Quackgrass)	H	5	FAC				
<i>Phalaris arundinacea</i> (Reed canarygrass)	H	1	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: 4 inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 4 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **X Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? **X Yes** No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-8	A	10YR 3/2			SiL, Granular	
8-12+	B	10YR 3/1	10YR3/6	Many, med., Dist.	GsiCL, Subangular	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	---

Hydric soils present? **X Yes** **No**
 Rationale for decision/Remarks: Cemented layer at 12 inches. Could not dig pit deeper due to restrictive layer

Wetland Determination

Hydrophytic vegetation present?	x Yes	<input type="checkbox"/> No
Hydric soils present?	X Yes	No
Wetland hydrology present?	X Yes	No
Is the sampling point within a wetland?	X Yes	No

Rationale/Remarks:

NOTES: Soil has restrictive layer at 12 inches. Could not dig pit deeper than 12 inches

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 38 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Agrostis tenuis</i>	H	95	FAC	Hybrid Poplar (<i>Populus</i> sp)	T	70	FAC
Tiny vetch (<i>Vicia hirsuta</i>)	H	T	NI				
<i>Agropyron repens</i>	H	1	FAC				
Creeping buttercup (<i>Ranunculus repens</i>)	H	1	FACW				
<i>Festuca arundinacea</i>	H	1	FAC-				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Co-dominant species throughout area.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No

Rationale for decision/remarks: Noticable increase in elevation from wetland edge

SOILS

Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained

Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-4	A	10YR3/2			SiL, Gran	
4-16+	B	10YR 3/3			SiL, Gran-sub	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No

Rationale for decision/Remarks: Appears to be an inclusion of Birch Bay

Wetland Determination

Hydrophytic vegetation present? Yes No

Hydric soils present? Yes No

Wetland hydrology present? Yes No

Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 39 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Agrostis tenuis</i>	H	85*	FAC	<i>Circium arvense</i>	H	5	FACU
Soft rush (<i>Juncus effusus</i>)	H	1	FACW	<i>Festuca arundinacea</i>	H	1	FAC-
<i>Agropyron repens</i>	H	3	FAC-				
<i>Dactlis glomerata</i>	H	1	FACU				
<i>Populus sp. (hybrid)</i>	T	20	FAC*				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|--|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Water Marks: Yes No
on

Drift Lines: Yes No

Sediment Deposits: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: 0 inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 0 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **X No**
 Rationale for decision/remarks: higher elevation than adjacent wetlands

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes X No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-6	A	10YR 3/2			Silt loam, Gran	
6-18	B	10YR 3/3			SiL, Gran-subang, small	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	---

Hydric soils present? **Yes** **X No**
 Rationale for decision/Remarks: Bright chroma

Wetland Determination

Hydrophytic vegetation present?	x Yes	<input type="checkbox"/> No
Hydric soils present?	Yes	X No
Wetland hydrology present?	Yes	X No
Is the sampling point within a wetland?	Yes	XNo

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 40 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
(<i>Cirsium arvense</i>)	H	1	FACU	Spikerush (<i>Eleocharis acicularis</i>)	H	25*	OBL
<i>Holcus lanatus</i>	H	1	FAC				
(<i>Agrostis tenuis</i>)	H	75*	FAC				
<i>Agropyron repens</i>	H	5	FAC-				
Rubus discolor	S	20*	FACU-				
<i>Populus</i> sp (hybrid)	T	35*	FAC*				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **X No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? **Yes** **X No**

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-16	A	10YR 4/3			SiL, gran	
16+	B	10YR 3/4			SiL, Gran	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? **Yes** **X No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **x Yes** **No**
 Hydric soils present? **Yes** **X No**
 Wetland hydrology present? **Yes** **X No**
 Is the sampling point within a wetland? **Yes** **X No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 41 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>(Agrostis tenuis)</i>	H	70*	FAC				
Himalayan blackberry <i>(Rubus discolor)</i>	S	55*	FACU				
Bluegrass (<i>Poa pratensis</i>)	H	1	FAC				
<i>Holcus lanatus</i>	H	15	FAC				
Evergreen blackberry <i>(Rubus laciniatus)</i>	S	15*	FACU+				
<i>Phalaris arundinacea</i>	H	T	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|--|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Not > than 50 %

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 42 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Agrostis tenuis</i>	H	60*	FAC				
<i>Agropyron repens</i>	H	35*	FAC-				
<i>Circium arvense</i>	H	1	FACU				
<i>Populus balsamifera</i>	T	10*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 66%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: FAC species only.

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 43 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Tiny vetch (<i>Vicia hirsuta</i>)	H	20*	NI				
Himalayan blackberry (<i>Rubus discolor</i>)	S	50*	FACU				
Bluegrass (<i>Poa pratensis</i>)	H	15*	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	15*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: does not exceed 50%. Cover Values shown have not been relativized

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-12	A	10YR2/2			SiL, gran	
12-16	B	2.5Y5/6			SiL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **X Yes** **No**
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 44 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Baltic rush (<i>Juncus balticus</i>)	H	1	FACW+				
Creeping buttercup (<i>Ranunculus repens</i>)	H	20*	FACW				
<i>Agrostis alba</i>	H	70*	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
<i>Cirsium arvense</i>	H	1	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Depth of inundation: _____ inches

Depth to free water in pit: _____ inches

Depth to saturated soil: 10 inches

Water Marks: Yes No
on

Drift Lines: Yes No

Oxidized Root (live roots)
Channels <12in.: Yes No

FAC Neutral: Yes No

Sediment Deposits: Yes No

Drainage Patterns: Yes No

Local Soil Survey: Yes No

Water-stained Leaves:
 Yes No

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks: Three feet from wetland edge, saturation at 10 inches.

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (<u>match description</u>)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-4	A	10YR 3/2			SiL, Granular	
4-14+	B	10YR 2/2	10YR 2/4	Many, med. Dist.	SiCL, Subangular	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: H₂S., low matrix chroma and mottles

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 45 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)							
Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Giant horsetail (<i>Equisetum telmateia</i>)	H	20*	FACW	Indian plum (<i>Oemleria cerasiformis</i>)	S	5	FACU
Soft rush (<i>Juncus effusus</i>)	H	25*	FACW	European red elderberry (<i>Sambucus racemosa</i>)	S	5	FACU
<i>Agrostis tenuis</i>	H	10	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	20*	FACU				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	10	FACW				
Merten's rush (<i>Juncus mertensianus</i>)	H	5	OBL				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 66%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY			
Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Depth to saturated soil: _____ inches			

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 46 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Creeping buttercup (<i>Ranunculus repens</i>)	H	5	FACW				
Black cottonwood (<i>Populus trichocarpa</i>)	T	75	FAC				
<i>Agrostis stolonifera</i>	H	70	FACW				
<i>Agropyron repens</i>	H	5	FAC-				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Within cottonwood planted area, south of Grandview Road, east of Blaine Road.

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 12 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-10	A	10YR2/1			Silt loam	
10 - 18	B	10YR 3/2	10YR 3/4	Many medium dist	SiCL, subangular blocky, medium	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? Yes No
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: Plot 47 (plant site)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Douglas-fir (<i>Pseudotsuga menziesii</i>)	T	5	FACU	Himalayan blackberry (<i>Rubus discolor</i>)	S	60*	FACU
Black cottonwood (<i>Populus trichocarpa</i>)	T	Trace	FAC	Tiny vetch (<i>Vicia hirsuta</i>)	H	Trace	NI
Evergreen blackberry (<i>Rubus laciniatus</i>)	S	5	FACU+	Colonial bentgrass (<i>Agrostis tenuis</i>)	H	15*	FAC
Vernal sweetgrass (<i>Anthoxanthum odoratum</i>)	H	5	FACU				
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				
English plantain (<i>Plantago lanceolata</i>)	H	5	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Cover values are not relativised. Dominants are by layer

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 48 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Creeping buttercup (<i>Ranunculus repens</i>)	H	40	FACW				
<i>Juncus effusus</i>	H	5	FACW+				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	1	FACW				
Curly dock (<i>Rumex crispus</i>)	H	1	FAC+				
<i>Agrostis stolonifera</i>	H	35	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Black-tailed deer; Irrigation ditch stops water, moves west then north.

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 2 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? **Yes** **No**

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-9	A	10YR4/1	10YR3/4		Sil, gran	
9-15+	B	5GY5/1	10YR3/4		Sandy clay, subangular	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input checked="" type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: H₂S smell.

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 49 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Tiny vetch (<i>Vicia hirsuta</i>)	H	5	NI				
<i>Juncus effusus</i>	H	55	FACW+				
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				
<i>Agrostis tenuis</i>	H	10	FAC				
Bare ground		25					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 3 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-10	A	10YR2/1			Silty clay loam	
10-16+	B	5GY5/1	10YR3/4	Many, medium, distinct	Clay loam	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 50 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Himalayan blackberry (<i>Rubus discolor</i>)	S	60*	FACU				
Rough bluegrass (<i>Poa trivialis</i>)	H	15	FACW				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
<i>Cirsium arvense</i>	H	15	FACU				
Agrostis tenuis	H	40*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: not > than 50%

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: inches

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 51 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Lady's thumb (<i>Polygonum persicaria</i>)	H	1	FACW				
Rough bluegrass (<i>Poa trivialis</i>)	H	10*	FACW				
Velvetgrass (<i>Holcus lanatus</i>)	H	20*	FAC				
<i>Cirsium arvense</i>	H	5	FACU				
<i>Rubus discolor</i>	S	30*	FACU-				
<i>Holcus lanatus</i>	H	5	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 66%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes x **No**
 Rationale for decision/remarks: Higher elevation

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-11	A1	10YR4/2			Granular	
11+	A2	10YR5/2	10YR3/4	Common, small, distinct	Silty clay loam	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	---

Hydric soils present? Yes x **No**
 Rationale for decision/Remarks: Mottling starts at 11" – not 10"

Wetland Determination

Hydrophytic vegetation present?	X	Yes	No
Hydric soils present?	<input type="checkbox"/>	Yes	x No
Wetland hydrology present?	<input type="checkbox"/>	Yes	x No
Is the sampling point within a wetland?	<input type="checkbox"/>	Yes	x No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 52 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Tall fescue (<i>Festuca arundinacea</i>)	H	1	FACU+				
<i>Juncus effusus</i>	H	10	FACW+				
Velvetgrass (<i>Holcus lanatus</i>)	H	20*	FAC				
Agropyron repens	H	10	FAC-				
Agrostis tenuis	H	50*	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 53 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Himalayan blackberry (<i>Rubus discolor</i>)	S	20*	FACU				
<i>Agrostis tenuis</i>	H	40*	FAC*				
Canadian thistle (<i>Cirsium arvense</i>)	H	10	FACU				
<i>Agropyron repens</i>	H	15	FAC-				
<i>Holcus lanatus</i>	H	10	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: not > 50%

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes x **No**
 Rationale for decision/remarks: higher elevation

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-11		10YR3/2			SiL, gran	
11-14		10YR4/2			SiCL, sub	
14+		10YR4/2	10YR3/4	Few	SiCL, sub	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes x **No**
 Rationale for decision/Remarks: Mottling starts at 14", not 10"

Wetland Determination

Hydrophytic vegetation present?	X Yes	No
Hydric soils present?	<input type="checkbox"/> Yes	x No
Wetland hydrology present?	<input type="checkbox"/> Yes	x No
Is the sampling point within a wetland?	<input type="checkbox"/> Yes	x No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 54 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	75	FACW				
<i>Agrostis stolonifera</i>	H	15	FACW				
<i>Agropyron repens</i>	H	5	FAC-				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 14 inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks: Saturation starts at 14" in June. It would be higher earlier in the growing season

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	Drawing of soil profile (match description)
0-8	A	10YR 3/2			Granular, sub-granular, block, SiL	
8 - 14+	B	10YR 4/2	10YR 3/4	Many, medium, dist.	SiCL, Subangular, med.	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: H₂S smell; Active rhizospheres.

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks: H₂S smell; active rhizospheres

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 55 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Vernal sweetgrass (<i>Anthoxanthum odoratum</i>)	H	10*	FACU				
Himalayan blackberry (<i>Rubus discolor</i>)	S	60*	FACU				
Agrostis tenuis	H	10*	FAC				
Tall fescue (<i>Festuca arundinacea</i>)	H	10*	FAC-				
Bare ground		10					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 25%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
 Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes x **No**
 Rationale for decision/remarks: Higher elevation

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-6	A	10YR3/2			GSL,, gran	
6 - 12	B1	10YR 4/3			GSiL, gran	
12 - 18	B2	10YR 4/3			GsiL, gran-sub	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes x **No**
 Rationale for decision/Remarks: One foot up in elevation from wetland edge.

Wetland Determination

Hydrophytic vegetation present?	Yes	X No
Hydric soils present?	<input type="checkbox"/> Yes	x No
Wetland hydrology present?	<input type="checkbox"/> Yes	x No
Is the sampling point within a wetland?	<input type="checkbox"/> Yes	x No

Rationale/Remarks: higher elevation

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 56 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	100	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 12 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly drained
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance Size and contrast	Texture, concretions, Structure, etc.	
0-3	A	10YR3/2			SiL	
3-14	B	7.5YR2.5/2	7.5YR5/8	Common, medium, distinct	SiCL	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 6-11-01
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Plot 57 (plant site)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Vernal sweetgrass (<i>Anthoxanthum odoratum</i>)	H	10	FACU				
Canadian thistle (<i>Cirsium arvense</i>)	H	5	FACU				
<i>Agrostis tenuis</i>	H	10	FAC				
Tiny vetch (<i>Vicia hirsuta</i>)	H	20*	NI				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	15	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	40*	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 0%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Water Marks: Yes No

Sediment Deposits: Yes No

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

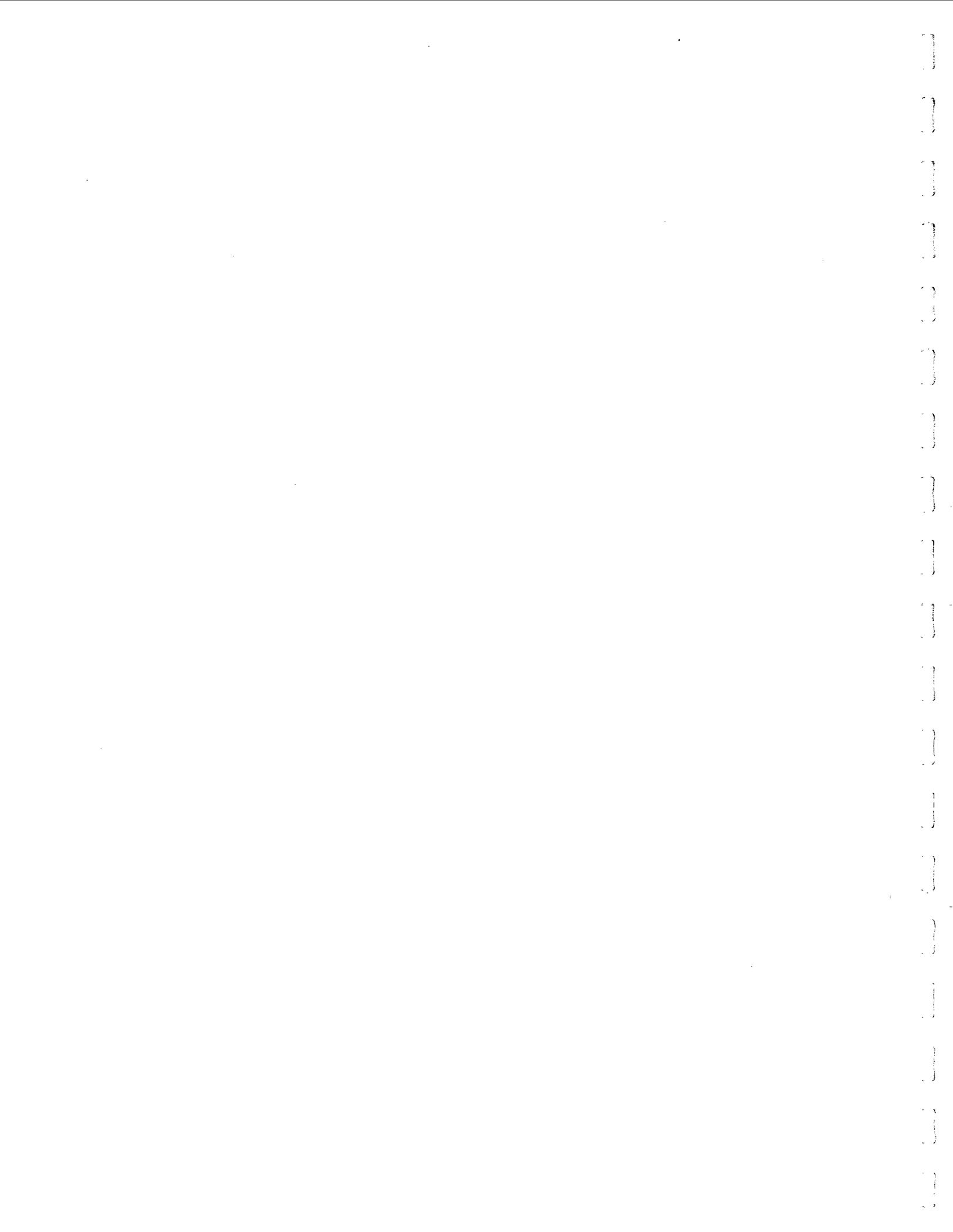
Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: inches





Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 1 (Laydown Area 3, Wetland G)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	45*	FACW	Red clover (<i>Trifolium pratense</i>)	H	3	FACU
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	30*	FAC				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	10	FACW				
English plantain (<i>Plantago lanceolata</i>)	H	3	FAC				
Bull thistle (<i>Cirsium vulgare</i>)	H	4	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 8 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 8 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 2 (Laydown Area 3, Wetland G)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Canada thistle (<i>Cirsium arvense</i>)	H	1	FACU+				
Tiny vetch (<i>Vicia hirsuta</i>)	H	1	NI				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	50	FAC*				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	35	FACW*				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Bare ground		3					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 3 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 3 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly
 Taxonomy (subgroup) Umbracqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-6		10YR3/2			Granular , SiL	
6-12+		2.5Y3/2	10YR3/4	Medium, distinct	SiCL, subangular	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: 10Y5/1 one inch thick gley, silt loam, sub-angular block.

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 3 (Laydown Area 3, Wetland G)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	15	FACW				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	70	FAC				
Bare ground		5					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Depth of inundation: _____ inches

Depth to free water in pit: 4 inches

Depth to saturated soil: 4 inches

Water Marks: Yes No
on

Drift Lines: Yes No

Oxidized Root (live roots)
Channels <12in.: Yes No

FAC Neutral: Yes No

Sediment Deposits: Yes No

Drainage Patterns: Yes No

Local Soil Survey: Yes No

Water-stained Leaves:
 Yes No

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-6		10YR3/2			Granular, sub-angular, blocky	
6-12		10Y3/2 and 2.5YR4/2	7.5YR3/4	Common	Silt loam, sub	
12+		10YR3/2	10YR3/4 and 2.5Y5/2		Silty clay loam, sub	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 4 (Laydown Area 3, Wetland G)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	20*	FACW				
Velvetgrass (<i>Holcus lanatus</i>)	H	15	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	60*	FAC				
Bare ground		5					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 4 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 4 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-6		10YR3/2			Granular, sub-angular, blocky	
6-12		10Y3/2 and 2.5YR4/2	7.5YR3/4	Common	Silt loam	
12+		10YR3/2	10YR3/4 and 2.5Y5/2		Silty clay loam	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 5 (Laydown Area 3, Wetland G)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	20*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	60*	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	15	FAC				
Bare ground		5					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 4 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 4 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-6		10YR3/2			Granular, silt loam	
6-12		2.5YR3/2	7.5YR4/3		Granular, silt loam	
12+		2.5YR 3/2	7.5YR 4/3		Sub-angular, blocky	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	---

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Gleying at 12 inches.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 6 (Laydown Area 3, Wetland G)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	90*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	5	FAC				
Bare ground		5					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation <input type="checkbox"/> Morphological adaptations <input checked="" type="checkbox"/> Technical Literature	<input type="checkbox"/> Physiological/reproductive adaptations <input checked="" type="checkbox"/> Wetland plant database <input checked="" type="checkbox"/> Personal knowledge of regional plant communities <input type="checkbox"/> Other (explain)
---	---

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: 1 inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-12+		10YR3/1				

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Slight sulfidic odor.

Wetland Determination

Hydrophytic vegetation present?	X Yes	<input type="checkbox"/> No
Hydric soils present?	x Yes	<input type="checkbox"/> No
Wetland hydrology present?	x Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	X Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 7 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Bluegrass (<i>Poa pratensis</i>)	H	10	FAC				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	55*	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Himalayan blackberry (<i>Rubus discolor</i>)	S	20*	FACU				
Chickweed (<i>Stellaria media</i>)	H	5	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes * No

Rationale for decision/Remarks: not > 50%

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 12 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks: Fills with water at 12 inches over standing time of 2 minutes. Very marginal on hydrology

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-6		10YR4/3			Granular	
6-10+		10YR3/3			Silty loam, granular	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Slightly raised upland; soils not hydric.

Wetland Determination

Hydrophytic vegetation present?	Yes	X No
Hydric soils present?	Yes	X No
Wetland hydrology present?	x Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input type="checkbox"/> Yes	x No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 8 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	60*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	10	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	15	FACW				
Starry false-solomon's-seal (<i>Smilacina stellata</i>)	H	5	FAC-				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 4 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 4 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-3		10YR2/2			SiL	
3-12		10YR2/2	7.5YR6/6	Few, medium, distinct	Silty clay loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks: Sulfidic odor; Rhizospheres.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 9 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	5	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	80*	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	5	FACW				
Himalayan blackberry (<i>Rubus discolor</i>)	S	5	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 4 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 1 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-6		10YR3/2	10YR4/4	Few, medium, faint	Sub-angular, blocky	
6-10+		10YR3/2	10YR5/4	Few, medium, faint	Sub-angular, blocky	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks: Rhizospheres; Sub-angular, blocky.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 10 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Common plantain (<i>Plantago major</i>)	H	45*	FACU+				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	35*	FAC				
Bull thistle (<i>Cirsium vulgare</i>)	H	5	FACU				
Himalayan blackberry (<i>Rubus discolor</i>)	S	10*	FACU				
Douglas-fir (<i>Pseudotsuga menziesii</i>)	T	5	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 33

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 11 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-12	A	10YR3/2			Sandy loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma \leq 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Loamy sand starts at 7 inches.

Wetland Determination

Hydrophytic vegetation present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Hydric soils present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 11 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	90	FACW				
Bare ground		10					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: 2 inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-3		10YR3/2			Silty clay loam, sub-angular, blocky	
3-12		10YR3/1	10YR5/6	Few, medium, distinct	Silty clay loam, sub-angular, blocky	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present?	x Yes	<input type="checkbox"/> No
Hydric soils present?	x Yes	<input type="checkbox"/> No
Wetland hydrology present?	x Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	x Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 12 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	5	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	80	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	5	FACW				
Himalayan blackberry (<i>Rubus discolor</i>)	S	5	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|--|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Depth of inundation: inches

Depth to free water in pit: 7 inches

Depth to saturated soil: 7 inches

Water Marks: Yes No
on

Drift Lines: Yes No

Oxidized Root (live roots)
Channels <12in.: Yes No

FAC Neutral: Yes No

Sediment Deposits: Yes No

Drainage Patterns: Yes No

Local Soil Survey: Yes No

Water-stained Leaves:
 Yes No

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-6		10YR3/2	10YR4/4	Few, medium, faint	Sub-angular, blocky	
6-10		10YR3/2	10YR5/4	Few, medium, faint	Sub-angular, blocky	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks: Rhizospheres; Sub-angular, blocky.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 13 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	40	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Common catsear (<i>Hypochaeris radicata</i>)	H	5	NI				
Scouler's willow (<i>Salix scouleriana</i>)	S	5	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Water Marks: Yes No
on

Drift Lines: Yes No

Sediment Deposits: Yes No

Drainage Patterns: Yes No

Depth of inundation: 1 inches

Oxidized Root (live roots)
Channels <12 in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: inches

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-3		10YR3/2			Sandy silt loam, granular	
3-12		10YR2/2	10YR6/4 and	Very few, small, very faint	Sandy silt loam, granular	
12+			2.5YR6/2	Few, medium, distinct		

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Rhizospheres; Soils very marginal.

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 14 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	20*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	50*	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Bull thistle (<i>Cirsium vulgare</i>)	H	5	FAC				
Reed canary grass (<i>Phalaris arundinacea</i>)	H	10	FACW				
Himalayan blackberry (<i>Rubus discolor</i>)	S	5	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 10 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 10 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Birch Bay Drainage Class Mod. Well drained
 Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-3		10YR3/2			Granular, SiL	
3-12+		10YR3/2			Sub-angular, Sub	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks: Soils very marginal; lack of soil mottles.

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks: did not have hydric soils

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 15 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	10	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	60	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	20	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	10	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 8 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 8 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-6		10YR3/2			Loamy clay, granular	
6-12+		10YR3/2	10YR6/8	Common, medium, faint	Loamy clay, sub-angular, blocky	
			2.5Y5/2	Common, large, distinct		

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 16 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	20*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	20*	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	20*	FAC				
Common plantain (<i>Plantago major</i>)	H	10	FACU+				
Himalayan blackberry (<i>Rubus discolor</i>)	S	30*	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **X No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-3		10YR3/2			SSiL, gran	
3-12		10YR3/3			SiL, gran	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes x No
 Rationale for decision/Remarks: Matrix too bright

Wetland Determination

Hydrophytic vegetation present? x Yes No
 Hydric soils present? Yes x No
 Wetland hydrology present? Yes X No
 Is the sampling point within a wetland? Yes x No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 17 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	40*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40*	FAC				
Soft rush (<i>Juncus effusus</i>)	H	5	FACW				
Common plantain (<i>Plantago major</i>)	H	5	FACU+				
Slough sedge (<i>Carex obnupta</i>)	H	5	OBL				
Sitka willow (<i>Salix sitchensis</i>)	S	5	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 11 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 11 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-8		10YR3/2			Granular, silty loam	
8-12		10YR3/2	10YR4/6	Common, medium, distinct	Granular, silty loam	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present?	x Yes	<input type="checkbox"/> No
Hydric soils present?	x Yes	<input type="checkbox"/> No
Wetland hydrology present?	x Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	x Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 18 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	20*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40*	FAC				
Red clover (<i>Trifolium pratense</i>)	H	10	FACU				
Common plantain (<i>Plantago major</i>)	H	10	FACU+				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Common catsear (<i>Hypochaeris radicata</i>)	H	10	NI				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: _____ inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-3		10YR3/3			Silty loam, gran	
3-12		10YR3/2			Silty loam, sub	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes No
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? Yes No
 Hydric soils present? Yes No
 Wetland hydrology present? Yes No
 Is the sampling point within a wetland? Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 19 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Himalayan blackberry (<i>Rubus discolor</i>)	S	30*	FACU				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	30*	FAC				
Red clover (<i>Trifolium pratense</i>)	H	5	FACU				
Common plantain (<i>Plantago major</i>)	H	20*	FACU+				
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				
Bare ground		10					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 33%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? Yes x No
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Birch bay Drainage Class Somewhat well drained
 Taxonomy (subgroup) Haplorthods Field observations confirm mapped type? X Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-12	A	10YR3/2			Silty loam, blocky, sub-angular	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes x No
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present?	Yes	X No
Hydric soils present?	<input type="checkbox"/> Yes	x No
Wetland hydrology present?	<input type="checkbox"/> Yes	x No
Is the sampling point within a wetland?	<input type="checkbox"/> Yes	x No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 20 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	10	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	70*	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	5	FAC				
Chickweed (<i>Stellaria media</i>)	H	5	FACU				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation <input type="checkbox"/> Morphological adaptations <input checked="" type="checkbox"/> Technical Literature	<input type="checkbox"/> Physiological/reproductive adaptations <input checked="" type="checkbox"/> Wetland plant database <input checked="" type="checkbox"/> Personal knowledge of regional plant communities <input type="checkbox"/> Other (explain)
---	---

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 8 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 8 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-3	A	10YR3/2			SiL	
3-12+	b	7.5YR3/3	10YR6/8	Few, faint	SiCL	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? Yes **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks: BPJ. Plot taken on edge of wetland.

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 21 (Laydown Area 1, Wetland J)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	40	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	25	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	20	FAC				
Tiny vetch (<i>Vicia hirsuta</i>)	H	15	NI				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: _____ inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 22 (Laydown Area 1, Wetland J)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	40	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40	FAC				
Red top (<i>Agrostis alba</i>)	H	20	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 12 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 3 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-3	A	10YR3/2			Sandy clay loam	
3-14	B	2.5YR4/1	10YR6/4	Many, faint	Sandy clay loam	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	---

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-22-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 23 (Laydown Area 1, Wetland J)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	90	FACW				
Bare ground		10					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 8inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 8 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-4	A1	10YR3/2			Silt loam, granular	
4-8	A3	10YR3/2			Silty clay loam, sub-angular, blocky	
8-12	B	10Y5/1	10YR4/4	Many, medium, distinct	Gleyed	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma \leq 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks: For Wetland J, approximate wet boundary not surveyed or flagged – based on topo rise.

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-23-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 24 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	20*	FACW				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	35*	FACW.				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	25*	FAC				
Douglas-fir (<i>Pseudotsuga menziesii</i>)	T	10*	FACU				
Curly dock (<i>Rumex crispus</i>)	H	10	FAC+				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 75%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 10 inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 3 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-23-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 26 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Himalayan blackberry (<i>Rubus discolor</i>)	S	10*	FACU				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	15	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	65*	FAC				
Bluegrass (<i>Poa pratensis</i>)	H	5	FAC				
Velvetgrass (<i>Holcus lanatus</i>)	H	5	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Dominants 50%, all associated species wet. BPJ - hydrophytic

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 10 inches	FAC Neutral: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: 10 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (<u>match description</u>)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-8		10YR2/2				
8-12		2.5YR4/2	2.5YR4/4			

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-23-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 27 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Himalayan blackberry (<i>Rubus discolor</i>)	S	10*	FACU*	Birds-foot trefoil (<i>Lotus corniculatus</i>)	H	5	FAC
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	15	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	40*	FAC*				
Velvetgrass (<i>Holcus lanatus</i>)	H	15	FAC				
Soft rush (<i>Juncus effusus</i>)	H	5	FACW				
Red clover (<i>Trifolium pratense</i>)	H	10	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation | <input type="checkbox"/> Physiological/reproductive adaptations |
| <input type="checkbox"/> Morphological adaptations | <input checked="" type="checkbox"/> Wetland plant database |
| <input checked="" type="checkbox"/> Technical Literature | <input checked="" type="checkbox"/> Personal knowledge of regional plant communities |
| | <input type="checkbox"/> Other (explain) |

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Dominants 50%, most associated species wet. BPJ-hydrophytic

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: 0.5i nches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: surface inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-23-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: SP 28 (Laydown Area 2, Wetland F)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Himalayan blackberry (<i>Rubus discolor</i>)	S	10*	FACU				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	10	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	60*	FAC				
Douglas-fir (<i>Pseudotsuga menziesii</i>)	T	10*	FACU				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 33%

Check all indicators that apply and explain below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|---|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? Yes No

Water Marks: Yes No
on

Sediment Deposits: Yes No

Based on: Soil temp (record temp)
 Other (explain) Month

Drift Lines: Yes No

Drainage Patterns: Yes No

Depth of inundation: inches

Oxidized Root (live roots)
Channels <12in.: Yes No

Local Soil Survey: Yes No

Depth to free water in pit: inches

FAC Neutral: Yes No

Water-stained Leaves:
 Yes No

Depth to saturated soil: 14 inches

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-23-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 29 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	10	FACW	Scouler's willow (<i>Salix scouleriana</i>)	S	5	FAC
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	60	FACW				
Tiny vetch (<i>Vicia hirsuta</i>)	H	5	NI				
Red clover (<i>Trifolium pratense</i>)	T	5	FACU				
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Hardhack (<i>Spiraea douglasii</i>)	S	5	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: _____ inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: _____ inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: _____ inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-23-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 31 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Velvetgrass (<i>Holcus lanatus</i>)	H	10	FAC				
Tiny vetch (<i>Vicia hirsuta</i>)	H	30*	NI				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	20*	FAC				
Common plantain (<i>Plantago major</i>)	H	30*	FACU+				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	10	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 33%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 12 inches		

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-23-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: SP 32 (Laydown Area 2, Wetland F)
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Reed canary grass (<i>Phalaris arundinacea</i>)	H	60*	FACW				
Colonial bentgrass (<i>Agrostis tenuis</i>)	H	20*	FAC				
Meadow foxtail (<i>Alopecurus pratensis</i>)	H	10	FACW				
Bare ground		10					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth of inundation: 1 inches	Oxidized Root (live roots) Channels <12in.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Local Soil Survey: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to saturated soil: inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase): Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (<u>match description</u>)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-8		10YR2/2			Silt loam	
8-12		10YR2/2	10YR6/1 and 2.5Y4/4		Silty clay	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
---	--

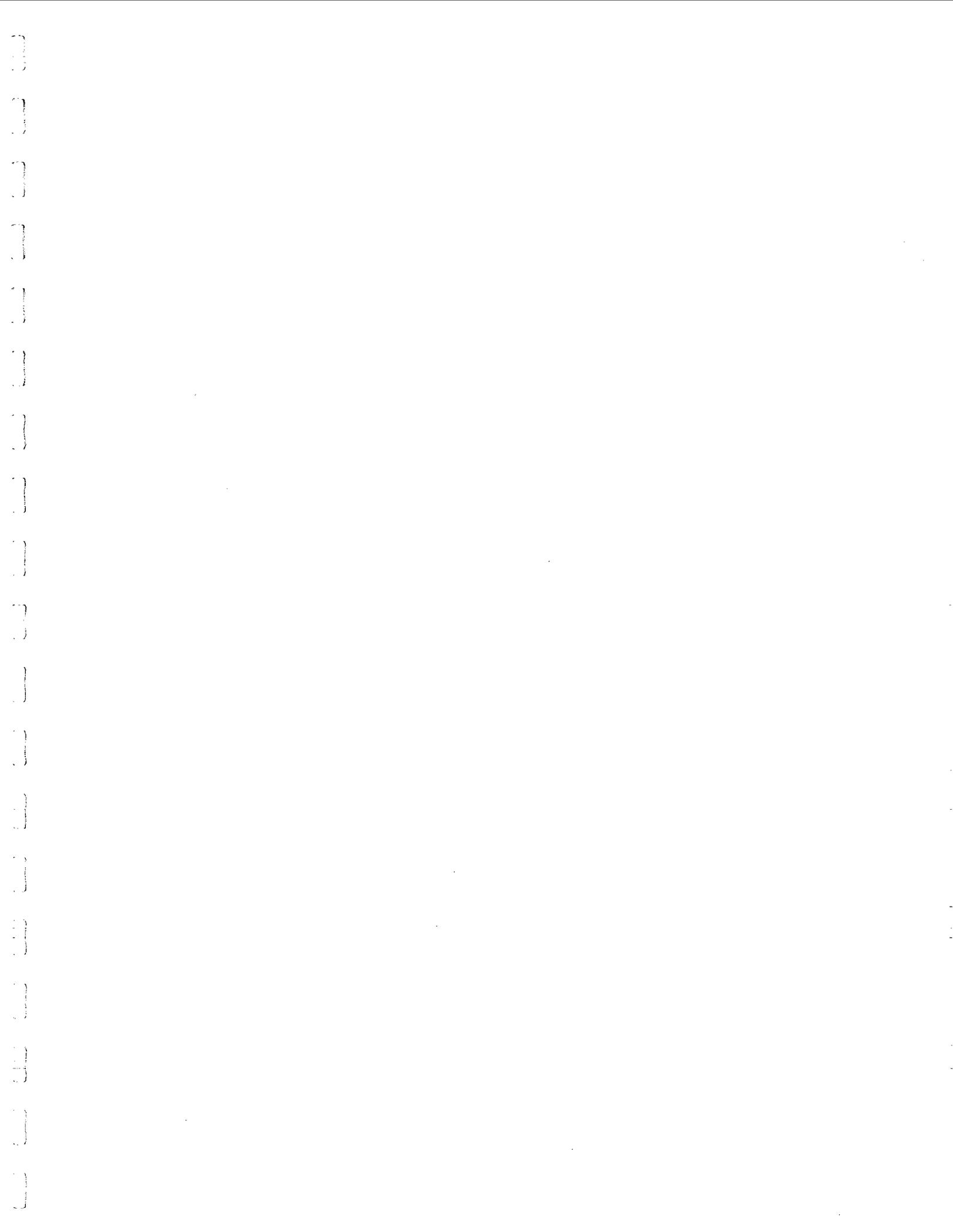
Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:



Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-30-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E

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 the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Explanation of atypical or problem area:	Community ID: Transect ID: Plot ID: Access Road 1 – Wetland H (Connected to Wetland D)
--	---

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Agrostis stolonifera</i>	H	95	FACW				
<i>Juncus effusus</i>	H	2					

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Vegetation 8 inches under the snow, assume wetland vegetation. Veg. Observed during the next summer

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 10 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : Whitehorn Drainage Class Poorly
 Taxonomy (subgroup) Umbraqualfs Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-10+		7.5YR2.5/1			Silt loam, granular	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 1-30-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Martin Schott and Becky Gurshaw	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: Access Road 2 – Wetland H (Connected to Wetland D)
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Phalaris arundinacea	H	30	FACW				
Agrostis stolonifera	H	65	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Vegetation 8 inches under the snow, assume wetland vegetation. Veg observed later in growing season

HYDROLOGY

Is it the growing season? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) Month	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to free water in pit: 12 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: 6 inches		

Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):
--	------------------

Wetland hydrology present? **Yes** **No**
 Rationale for decision/remarks:

SOILS
 Map Unit Name (Series and Phase) : _____ Drainage Class _____
 Taxonomy (subgroup) _____ Field observations confirm mapped type? Yes No

Profile Description						Drawing of soil profile (match description)
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	
0-6		10YR2/2			Granular	
6-12		10YR2/2	2.5Y5/2	Few, medium, distinct	Granular	

Hydric Soil Indicators: (check all that apply)

<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 (=1) matrix	<input checked="" type="checkbox"/> Matrix chroma ≤ 2 with mottles <input type="checkbox"/> Mg or Fe Concretions <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
--	--

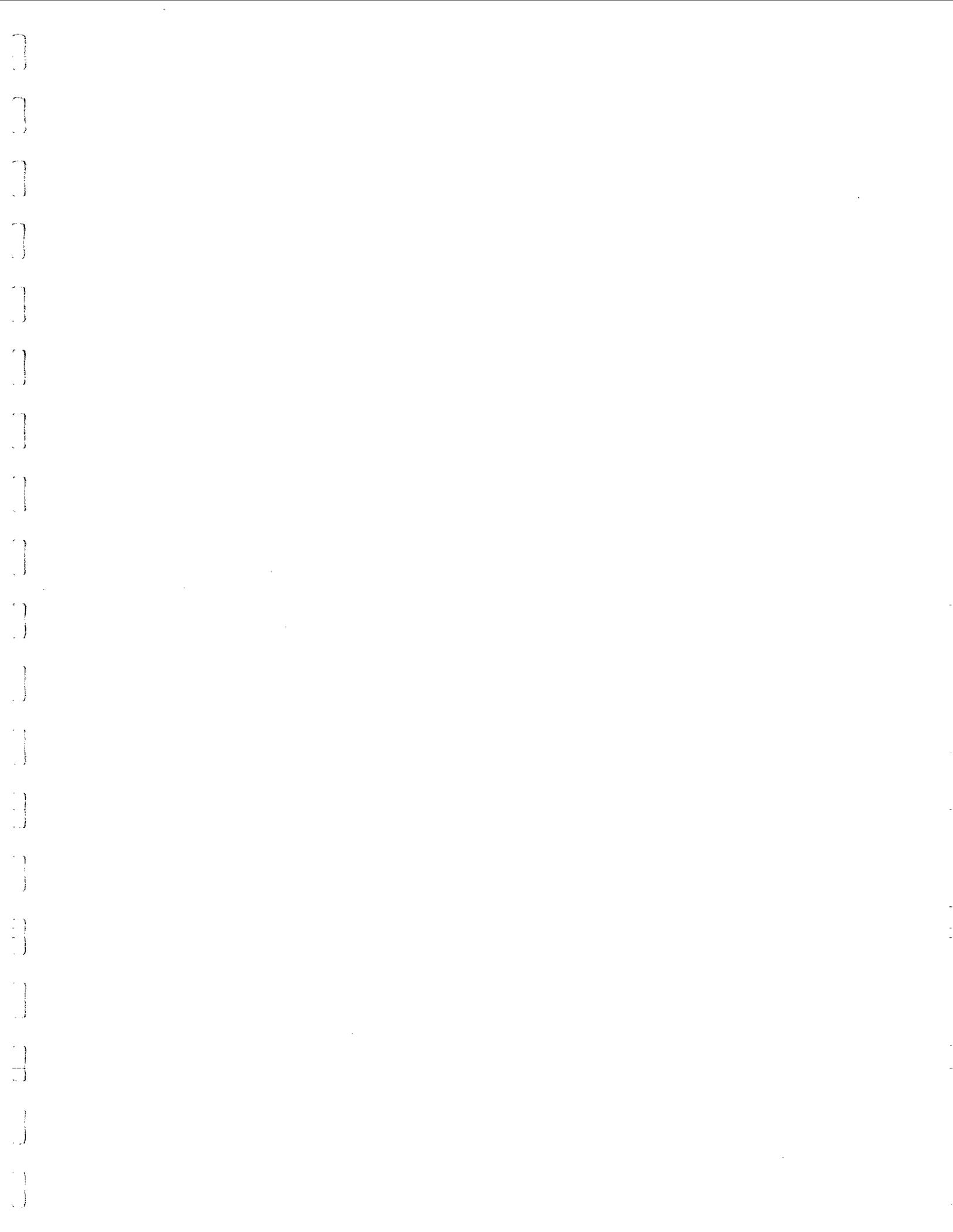
Hydric soils present? **Yes** **No**
 Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present? **Yes** **No**
 Hydric soils present? **Yes** **No**
 Wetland hydrology present? **Yes** **No**
 Is the sampling point within a wetland? **Yes** **No**

Rationale/Remarks:

NOTES:



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 10-15-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Jeff Walker	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: 02-1
Explanation of atypical or problem area:	Laydown detention pond

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Phalaris arundinacea</i>	H	100	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Vegetation is dominated by hydrophytic species

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on SCS manual	on	
Based on: <input type="checkbox"/> Soil temp (record temp)	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Other (explain) Month		
Depth of inundation: NA inches	Oxidized Root (live roots)	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Channels <12 in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Depth to free water in pit: >18 inches FAC Neutral: Yes No Water-stained Leaves: Yes No

Depth to saturated soil: >18 inches

Check all that apply & explain below: Other (explain):

Stream, lake or gage data

Aerial photographs

Other

Wetland hydrology present? x Yes No

Rationale for decision/remarks: Prior observations indicate this area is saturated or inundated during the early part of the growing season.

SOILS

Map Unit Name (Series and Phase): Whitehorn silt loam Drainage Class: Poorly

Taxonomy (subgroup) typic Umbraqualfs Field observations confirm mapped type? x Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-14	A	7.5YR2.5/3			loam	
14-18	B	10 YR 3 / 4	5YR 5 / 8	Common	Clay loam	

Hydric Soil Indicators: (check all that apply)

Histosol Matrix chroma ≤ 2 with mottles

Histic Epipedon Mg or Fe Concretions

Sulfidic Odor High Organic Content in Surface Layer of Sandy Soils

Aquic Moisture Regime Organic Streaking in Sandy Soils

Reducing Conditions x Listed on National/Local Hydric Soils List

Gleyed or Low-Chroma (=1) matrix Other (explain in remarks)

Hydric soils present? x Yes No

Rationale for decision/Remarks: The B horizon contains a high clay content

Wetland Determination

Hydrophytic vegetation present? x Yes No

Hydric soils present? x Yes No

Wetland hydrology present? x Yes No

Is the sampling point within a wetland? x Yes No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual)

Project/Site: BP Cherry Point Cogeneration Project	Date: 10-15-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Jeff Walker	State: Washington
	S/T/R: S8/T39N/R1E
Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Transect ID: Plot ID: 02-2 Laydown detention pond
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Explanation of atypical or problem area:	

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Phalaris arundinacea</i>	H	100	FACW				
<i>Pseudotsuga menziesii</i>	T	30	FACU				
<i>Rubus discolor</i>	S	15	FACU				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 50%

Check all indicators that apply and explain below:

- | | |
|--|---|
| <input type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation
<input type="checkbox"/> Morphological adaptations
<input checked="" type="checkbox"/> Technical Literature | <input type="checkbox"/> Physiological/reproductive adaptations
<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
<input type="checkbox"/> Other (explain) |
|--|---|

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Vegetation is not dominated by hydrophytic species

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) SCS manual	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: NA inches	Oxidized Root (live roots) Channels <12 in.: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No

Depth to free water in pit: >18 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: >18 inches		
Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):	

Wetland hydrology present? Yes No
 Rationale for decision/remarks: This area appears to be on a slight topographic rise.

SOILS
 Map Unit Name (Series and Phase) : Birchbay silt loam Drainage Class: moderately well-drained
 Taxonomy (subgroup) typic Haplorthod Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-16	A	10YR 3/3			loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No
 Rationale for decision/Remarks: The soil is very rocky and somewhat elevated

Wetland Determination

Hydrophytic vegetation present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric soils present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland hydrology present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the sampling point within a wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Rationale/Remarks: An upland island on a slight topographic rise.

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 10-15-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Jeff Walker	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: 02-3
Explanation of atypical or problem area:	Laydown detention pond

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Phalaris arundinacea</i>	H	100	FACW				
<i>Pseudotsuga menziesii</i>	T	10	FACU				
<i>Alnus rubra</i>	S	5	FAC				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 100%

Check all indicators that apply and explain below:

<input checked="" type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation	<input type="checkbox"/> Physiological/reproductive adaptations
<input type="checkbox"/> Morphological adaptations	<input checked="" type="checkbox"/> Wetland plant database
<input checked="" type="checkbox"/> Technical Literature	<input checked="" type="checkbox"/> Personal knowledge of regional plant communities
	<input type="checkbox"/> Other (explain)

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Vegetation is dominated by hydrophytic species

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) SCS manual	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: NA inches	Oxidized Root (live roots) Channels <12in: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No

Depth to free water in pit: >18 inches	FAC Neutral: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water-stained Leaves: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to saturated soil: >18 inches		
Check all that apply & explain below: <input type="checkbox"/> Stream, lake or gage data <input type="checkbox"/> Aerial photographs <input type="checkbox"/> Other	Other (explain):	

Wetland hydrology present? Yes No

Rationale for decision/remarks: Prior observations indicate this sloped area is saturated during the early part of the growing season.

SOILS

Map Unit Name (Series and Phase): Whitehorn silt loam Drainage Class: poorly drained

Taxonomy (subgroup) typic Umbraqualf Field observations confirm mapped type? Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-18	A	10YR 3/3			loam	

Hydric Soil Indicators: (check all that apply)

<input type="checkbox"/> Histosol	<input type="checkbox"/> Matrix chroma ≤ 2 with mottles
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Mg or Fe Concretions
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National/Local Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma (=1) matrix	<input type="checkbox"/> Other (explain in remarks)

Hydric soils present? Yes No

Rationale for decision/Remarks: The B horizon was not encountered in top 18 inches.

Wetland Determination

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric soils present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland hydrology present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the sampling point within a wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Rationale/Remarks:

NOTES:

Routine Wetland Determination

DATA FORM 1 (Revised)

WA State Wetland Delineation Manual or 1987 Corps Wetland Delineation Manual

Project/Site: BP Cherry Point Cogeneration Project	Date: 10-15-02
Applicant/owner: BP	County: Whatcom
Investigator(s): Jeff Walker	State: Washington
	S/T/R: S8/T39N/R1E

Do normal circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:
Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:
Is the area a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: 02-4
Explanation of atypical or problem area:	Laydown detention pond

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
<i>Rubus discolor</i>	S	100	FACW				
<i>Phalaris arundinacea</i>	H	5	FACW				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC: 0%

Check all indicators that apply and explain below:

<input type="checkbox"/> Visual observation of plant species growing in areas of prolonged inundation/saturation <input type="checkbox"/> Morphological adaptations <input checked="" type="checkbox"/> Technical Literature	<input type="checkbox"/> Physiological/reproductive adaptations <input checked="" type="checkbox"/> Wetland plant database <input checked="" type="checkbox"/> Personal knowledge of regional plant communities <input type="checkbox"/> Other (explain)
--	---

Hydrophytic vegetation present? Yes No

Rationale for decision/Remarks: Vegetation is not dominated by hydrophytic species

HYDROLOGY

Is it the growing season? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Marks: <input type="checkbox"/> Yes <input type="checkbox"/> No on	Sediment Deposits: <input type="checkbox"/> Yes <input type="checkbox"/> No
Based on: <input type="checkbox"/> Soil temp (record temp) <input checked="" type="checkbox"/> Other (explain) SCS manual	Drift Lines: <input type="checkbox"/> Yes <input type="checkbox"/> No	Drainage Patterns: <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth of inundation: NA inches	Oxidized Root (live roots) Channels <12 in: <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Soil Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No

Depth to free water in pit: >18 inches FAC Neutral: Yes No Water-stained Leaves: Yes No

Depth to saturated soil: >18 inches

Check all that apply & explain below: Other (explain):

Stream, lake or gage data

Aerial photographs

Other

Wetland hydrology present? x Yes No

Rationale for decision/remarks: Area is very flat, but no hydrology indicators were observed.

SOILS

Map Unit Name (Series and Phase) : Birchbay silt loam Drainage Class: moderately well-drained

Taxonomy (subgroup) typic Haplorthod Field observations confirm mapped type? x Yes No

Profile Description						
Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
0-11	A	10YR 3/3	7.5 YR 4/6	few	loam	
11-18	B	2.5 YR 4/3	5 YR 4/6	abundant	Sandy loam	

Hydric Soil Indicators: (check all that apply)

Histosol Matrix chroma ≤ 2 with mottles

Histic Epipedon Mg or Fe Concretions

Sulfidic Odor High Organic Content in Surface Layer of Sandy Soils

Aquic Moisture Regime Organic Streaking in Sandy Soils

Reducing Conditions Listed on National/Local Hydric Soils List

Gleyed or Low-Chroma (=1) matrix Other (explain in remarks)

Hydric soils present? Yes x No

Rationale for decision/Remarks: The soil has mottles, but B horizon has higher sand content than in wetlands.

Wetland Determination

Hydrophytic vegetation present? Yes x No

Hydric soils present? Yes x No

Wetland hydrology present? Yes x No

Is the sampling point within a wetland? Yes x No

Rationale/Remarks:

NOTES: