Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 1**
Date(s) of assessment:	**July 16, 2010**	Size (acres):	**8.11**
Data Sheet Number(s):	**9**	Cowardin Class(es):	**PEMC, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**DCNP**

TRS quarter section tax lot:	**1812120000702, 1812141000113, 1812141000300**
Street address or location:	**East end of 18th Street and Willow**
Latitude:	**44.012201°**
Longitude:	**-124.090047°**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Heceta fine sand, Dune land**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Juncus nevadensis***	**Sierra Rush**
Spirea douglasii	**Douglas spirea**	***Juncus ensifolius***	**Dagger-Leaf Rush**
Salix hookeriana	**Hooker's willow**	***Juncus falcatus***	**Sickle-Leaf Rush**
		Carex sitchensis	**Sitka Sedge**

Comments:

Complex of several depressional areas, inundated during the winter and spring. These wetlands were grouped because they are located in the same geomorphic position, are influenced by the local groundwater table, and have similar adjacent land use patterns. These wetlands are dominated by herbaceous vegetation, but with a scattered overstory of Pinus contorta at the north end of the wetland. Adjacent upland is mostly bare sand. Bordered to west by residential development and to the east by parking lots. Portions of this wetland obtained concurrence for a prior wetland delineation: WD1999-0356 & WD2003-0416. The boundary along the northwest extent was confirmed by DSL just prior to LWI approval: WD2013-0142.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 1

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	5.75	3.67
Sediment Retention & Stabilization (SR)	10.00	5.29
Phosphorus Retention (PR)	10.00	7.19
Nitrate Removal & Retention (NR)	10.00	4.76
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.25	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	4.13	6.00
Anadromous Fish Habitat (FA)	0.00	4.88
Non-anadromous Fish Habitat (FR)	5.87	10.00
Amphibian & Reptile Habitat (AM)	1.74	6.67
Waterbird Feeding Habitat (WBF)	4.88	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	3.21	6.67
Pollinator Habitat (POL)	2.71	3.06
Native Plant Diversity (PD)	5.94	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	5.75	3.67
Water Quality Group (WQ)	10.00	7.19
Carbon Sequestration (CS)	1.25	
Fish Support Group (FISH)	5.87	10.00
Aquatic Support Group (AQ)	4.88	6.67
Terrestrial Support Group (TERR)	5.94	6.67
Public Use & Recognition (PU)		2.38
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.54
Wetland Stressors		5.54
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 2**
Date(s) of assessment:	**July 16 & August 11, 2010**	Size (acres):	**2.59**
Data Sheet Number(s):	**7, 11**	Cowardin Class(es):	**PSS1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1812040000117, 1812041300077, 1812041402100, 1812041402200, 1812041402301, 1812041402303, 1812044200077**
Street address or location:	**East of 4th Avenue; north of Heceta Beach Road**
Latitude:	**44.036084°**
Longitude:	**-124.128587°**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002050704**
Soil -- Mapped series:	**Yaquina loamy fine sand, Waldport fine sand**
Hydrologic Source:	**Groundwater, Surface**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Spiraea douglasii	**Douglas' Spirea**	***Carex obnupta***	**Slough Sedge**
Salix hookeriana	**Hooker willow**	***Nuphar luteum***	**Yellow Cow-Lily**
Malus fusca	**Pacific Crabapple**		
Lonicera involucrata	**Bearberry honeysuckle**		

Comments:

The northern wetland boundaries are generally defined by steep banks. The western portion includes a small pond on its north end. High quality wetland; including numerous snags and dense emergent vegetation in the understory. The wetland is crossed by two driveways off of Rhododendron Drive/4th Avenue. Adjacent upland species include: Vaccinium ovatum, Gaultheria shallon, Pinus contorta, Myrica californica, Picea sitchensis.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 2

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	2.67	3.08
Sediment Retention & Stabilization (SR)	5.43	5.34
Phosphorus Retention (PR)	2.89	6.07
Nitrate Removal & Retention (NR)	5.12	5.25
Thermoregulation (T)	3.89	3.33
Carbon Sequestration (CS)	2.18	
Organic Matter Export (OE)	5.42	
Aquatic Invertebrate Habitat (INV)	4.82	6.37
Anadromous Fish Habitat (FA)	0.00	4.20
Non-anadromous Fish Habitat (FR)	3.91	3.33
Amphibian & Reptile Habitat (AM)	6.37	7.33
Waterbird Feeding Habitat (WBF)	4.20	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	4.42	6.67
Pollinator Habitat (POL)	3.96	5.00
Native Plant Diversity (PD)	6.63	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	2.67	3.08
Water Quality Group (WQ)	5.43	6.07
Carbon Sequestration (CS)	2.18	
Fish Support Group (FISH)	3.91	4.20
Aquatic Support Group (AQ)	6.37	7.33
Terrestrial Support Group (TERR)	6.63	6.67
Public Use & Recognition (PU)		0.71
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		4.43
Wetland Stressors		3.14
Wetland Sensitivity		5.71

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	1.50
Slope	2.44
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 3**
Date(s) of assessment:	**August 12, 2010**	Size (acres):	**4.59**
Data Sheet Number(s):	**16, 17**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope / Flats**

TRS quarter section tax lot:	**1812120000702, 1812141000113, 1812141000300**
Street address or location:	**Northwest of Munsel Lake Road**
Latitude:	**44.012201°**
Longitude:	**-124.090047°**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Heceta fine sand, Dune land**
Hydrologic Source:	**Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough sedge**
Vaccinium uliginosum	**Bog bilberry**	***Juncus falcatus***	**Sickle-leaved rush**
Spiraea douglasii	**Douglas spirea**	***Juncus nevadensis***	**Sierra rush**

Comments:

Complex of forested and emergent wetlands west of an advancing dune and northwest of Munsel Lake. Several of these wetlands are seasonally inundated, but dry out in the early spring and summer. Most are depressional and lack a surface connection though adjacent features may be tied to the same groundwater table. These wetlands were grouped because of their geomorphic similiarities and proximity.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 3

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	7.00	4.72
Sediment Retention & Stabilization (SR)	10.00	5.29
Phosphorus Retention (PR)	10.00	6.19
Nitrate Removal & Retention (NR)	10.00	4.76
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.20	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	6.37	6.89
Anadromous Fish Habitat (FA)	0.00	4.85
Non-anadromous Fish Habitat (FR)	2.16	6.67
Amphibian & Reptile Habitat (AM)	6.89	6.67
Waterbird Feeding Habitat (WBF)	4.85	4.00
Waterbird Nesting Habitat (WBN)	5.24	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.26	6.67
Pollinator Habitat (POL)	6.55	0.00
Native Plant Diversity (PD)	5.27	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	7.00	4.72
Water Quality Group (WQ)	10.00	6.19
Carbon Sequestration (CS)	1.20	
Fish Support Group (FISH)	2.16	6.67
Aquatic Support Group (AQ)	6.89	6.67
Terrestrial Support Group (TERR)	6.55	6.67
Public Use & Recognition (PU)		1.55
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.68
Wetland Stressors		3.75
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	2.50
Slope	1.81
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 4**
Date(s) of assessment:	**August 11, 2010**	Size (acres):	**19.20**
Data Sheet Number(s):	**12**	Cowardin Class(es):	**PFO4C, PSS1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Riverine; Slope**

TRS quarter section tax lot:	**1812230000400, 1812230000900, 1812231400100, 1812240000077, 1812240000088, 1812240001100, 1812240001101, 1812240001102, 1812240001200, 1812242302000, 1812242302001, 1812242302002, 1812242302100, 1812243201300, 1812242301400, 1812243201500, 1812243201600, 1812243201700, 1812243202200, 1812243202300**
Street address or location:	**West of N. Fork Siuslaw Rd.**
Latitude:	**43.9869**
Longitude:	**-124.0838**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060702**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand**
Hydrologic Source:	**Surface, Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Thuja plicata	**Western Red Cedar**	***Lysichitum americanum***	**American Skunk-Cabbage**
Myrica californica	**Pacific Wax-Myrtle**	***Blechnum spicant***	**Deer Fern**
Pinus contorta	**Shore Pine**	***Darlingtonia californica***	**California Pitcher-Plant**
Rubus spectabilis	**Salmonberry**	***Drosera rotundifolia***	**Round-Leaf Sundew**
Vaccinium ovatum	**Evergreen Huckleberry**	***Sphagnum sp.***	**Moss**
Gaultheria shallon	**Salal**		
Ledum glandulosum	**Smooth Labrador-Tea**		

Comments:

Part of large forested wetland. Water drains to the south eventually flowing into the North Fork Siuslaw beneath N. Fork Siuslaw Road. Upland vegetation is Acer macrophyllum, Polystichum munitum, Rubus spectabilis. Southern portion of wetland is mature forested wetland. The 1996 inventory noted that this wetland includes an uncommon plant community of Ledum and Sphagnum; as well as sundew and Darlingtonia. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2007-0746.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 4

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	2.31	7.64
Sediment Retention & Stabilization (SR)	5.48	6.44
Phosphorus Retention (PR)	6.05	6.18
Nitrate Removal & Retention (NR)	6.17	5.23
Thermoregulation (T)	3.78	7.50
Carbon Sequestration (CS)	3.48	
Organic Matter Export (OE)	6.11	
Aquatic Invertebrate Habitat (INV)	5.47	6.78
Anadromous Fish Habitat (FA)	6.56	10.00
Non-anadromous Fish Habitat (FR)	3.21	6.67
Amphibian & Reptile Habitat (AM)	4.38	7.33
Waterbird Feeding Habitat (WBF)	5.63	10.00
Waterbird Nesting Habitat (WBN)	5.42	7.17
Songbird, Raptor, & Mammal Habitat (SBM)	6.78	7.33
Pollinator Habitat (POL)	7.61	5.00
Native Plant Diversity (PD)	7.46	7.51

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	2.31	7.64
Water Quality Group (WQ)	6.17	7.50
Carbon Sequestration (CS)	3.48	
Fish Support Group (FISH)	6.56	10.00
Aquatic Support Group (AQ)	6.11	10.00
Terrestrial Support Group (TERR)	7.61	7.51
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		5.07
Wetland Stressors		4.36
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	5.50
Slope	3.69
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 5**
Date(s) of assessment:	**Fall 2010**	Size (acres):	**50.36**
Data Sheet Number(s):	**5**	Cowardin Class(es):	**PABH, PEMJ, PFO1C, PFO1J, PFO4C, PSS1J**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Riverine; Slope**

TRS quarter section tax lot:	**1812130001700, 1812144000200, 1812240000077, 1812240000406, 1812240000614, 1812240000619, 1812240000700, 1812240000900, 1812240000902, 1812240001100, 1812242300077, 1812242300102, 1812242300104, 1812242300105, 1812242301200, 1812242301300, 1812242301900, 1812242302300, 1812242302400, 1812242302500, 1812242302600, 1812242302700, 1812242302800, 1812242302900, 1812242303000, 1812243200077, 1812243200100, 1812243200200, 1812243200300, 1812243202100**
Street address or location:	**East of Munsel Lake Rd.**
Latitude:	**43.9972**
Longitude:	**-124.083**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060702**
Soil -- Mapped series:	**Yaquina loamy fine sand, Brallier variant muck, Waldport fine sand**
Hydrologic Source:	**Surface, Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	***Carex obnupta***	**Slough sedge**
Thuja plicata	**Wester red cedar**	***Athyrium filix-femina***	**Subarctic Lady Fern**
		Lysichitum americanum	**American Skunk-Cabbage**
		Oenanthe sarmentosa	**Water-Parsley**
		Deschampsia cespitosa	**Tufted Hairgrass**
		Potentilla anserina	**Silverweed**
		Agrostis alba	**Redtop**

Comments:

Large forested wetland east of Munsel Lake Road. Southern limits extend to the edge of the study area, to the limits of estuarine influence. Except for the extreme north end, north of North Fork Siuslaw River Road, the wetland is bordered to the west by residential development; as is a portion of its east side. Red alder is the dominant tree cover, with western red cedar and spruce. Adjacent upland vegetation includes Douglas fir, big leaf maple, salmonberry and sword fern. Portions of this wetland obtained concurrence for a prior wetland delineation: WD1996-0268.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 5

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.09	7.22
Sediment Retention & Stabilization (SR)	5.27	6.66
Phosphorus Retention (PR)	4.55	6.18
Nitrate Removal & Retention (NR)	5.09	6.06
Thermoregulation (T)	7.39	7.50
Carbon Sequestration (CS)	2.42	
Organic Matter Export (OE)	7.52	
Aquatic Invertebrate Habitat (INV)	6.13	7.89
Anadromous Fish Habitat (FA)	7.89	10.00
Non-anadromous Fish Habitat (FR)	3.50	6.67
Amphibian & Reptile Habitat (AM)	4.75	7.33
Waterbird Feeding Habitat (WBF)	6.56	7.33
Waterbird Nesting Habitat (WBN)	5.59	5.50
Songbird, Raptor, & Mammal Habitat (SBM)	7.36	6.67
Pollinator Habitat (POL)	8.79	5.00
Native Plant Diversity (PD)	8.10	10.00

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.09	7.22
Water Quality Group (WQ)	7.39	7.50
Carbon Sequestration (CS)	2.42	
Fish Support Group (FISH)	7.89	10.00
Aquatic Support Group (AQ)	7.52	7.33
Terrestrial Support Group (TERR)	8.79	10.00
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		7.29
Wetland Stressors		2.85
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	4.50
Slope	10.00
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 6**
Date(s) of assessment:	**August 2010**	Size (acres):	**30.72**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PSS1C, PEMC, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Riverine, Slope**

TRS quarter section tax lot:	**1812144000200, 1812230000100, 1812230000102, 1812232105608, 1812232105619, 1812232105700, 1812232107300, 1812232107400, 1812232107500, 1812232402800, 1812232402900, 1812232407600**
Street address or location:	**Munsell Creek County Park (and north)**
Latitude:	**43.9936**
Longitude:	**-124.0939**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand, Waldport fine sand, Dune land**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough sedge**
Vaccinium uliginosum	**Bog bilberry**		
Spiraea douglasii	**Douglas spirea**		
Salix sp.	**Willow**		

Comments:

The southern extent of this wetland is located in Munsell Creek County Park and continues northward into undeveloped shrub land to the north. Munsel Creek flows southward through the western portion of the wetland. The greater wetland area is bounded by residential development along its west side with sand dunes to the east. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2009-0011.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 6

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	1.77	2.17
Sediment Retention & Stabilization (SR)	4.77	6.51
Phosphorus Retention (PR)	2.59	5.68
Nitrate Removal & Retention (NR)	4.84	5.39
Thermoregulation (T)	3.39	7.50
Carbon Sequestration (CS)	2.77	
Organic Matter Export (OE)	7.39	
Aquatic Invertebrate Habitat (INV)	5.39	6.95
Anadromous Fish Habitat (FA)	6.95	10.00
Non-anadromous Fish Habitat (FR)	3.38	6.67
Amphibian & Reptile Habitat (AM)	4.03	7.33
Waterbird Feeding Habitat (WBF)	5.66	4.00
Waterbird Nesting Habitat (WBN)	5.63	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.54	6.67
Pollinator Habitat (POL)	7.51	5.00
Native Plant Diversity (PD)	6.94	7.43

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	1.77	2.17
Water Quality Group (WQ)	4.84	7.50
Carbon Sequestration (CS)	2.77	
Fish Support Group (FISH)	6.95	10.00
Aquatic Support Group (AQ)	7.39	7.33
Terrestrial Support Group (TERR)	7.51	7.43
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		5.70
Wetland Stressors		4.41
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	3.50
Slope	2.19
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 7**
Date(s) of assessment:	**August 2010**	Size (acres):	**2.75**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat**

TRS quarter section tax lot:	**1812033400077, 1812033400900, 1812102100077, 1812102104700, 1812402104800, 1812102105700, 1812102105800, 1812102106100**
Street address or location:	**South of Heceta Beach Road**
Latitude:	**44.027360°**
Longitude:	**-124.117013°**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**140 Yaquina loamy fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Salix sp.	**Willow**		

Comments:

South of Heceta Beach Road, between Windleaf and Heceta Park Roads. Isolated forested wetland dominated by willows.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 7

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	6.00	3.17
Sediment Retention & Stabilization (SR)	10.00	4.73
Phosphorus Retention (PR)	10.00	6.03
Nitrate Removal & Retention (NR)	10.00	4.13
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.15	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	4.95	6.41
Anadromous Fish Habitat (FA)	0.00	4.58
Non-anadromous Fish Habitat (FR)	2.21	6.67
Amphibian & Reptile Habitat (AM)	6.41	7.33
Waterbird Feeding Habitat (WBF)	4.58	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	4.23	6.67
Pollinator Habitat (POL)	5.23	5.00
Native Plant Diversity (PD)	4.63	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	6.00	3.17
Water Quality Group (WQ)	10.00	6.03
Carbon Sequestration (CS)	2.15	
Fish Support Group (FISH)	2.21	6.67
Aquatic Support Group (AQ)	6.41	7.33
Terrestrial Support Group (TERR)	5.23	6.67
Public Use & Recognition (PU)		10.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		3.72
Wetland Stressors		4.50
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	2.38
Flat	6.46
Depressional	5.28
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 8**
Date(s) of assessment:	**August 2010**	Size (acres):	**1.78**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4B**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat**

TRS quarter section tax lot:	**1812273100055, 1812273100077, 1812273100300, 1812273100900, 1812273101902**
Street address or location:	**North of 9th Street**
Latitude:	**43.9761**
Longitude:	**-124.1171**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**		

Comments:

This wetland is identifed on the National Wetland Inventory and the 1996 inventory. Its presence or absence could not be confirmed from off-site observations. The limits of this feature as identified for the inventory are based on air photo interpretation.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 8

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.50	3.08
Sediment Retention & Stabilization (SR)	10.00	5.15
Phosphorus Retention (PR)	10.00	6.03
Nitrate Removal & Retention (NR)	10.00	4.33
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.58	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	6.72	6.66
Anadromous Fish Habitat (FA)	0.00	4.26
Non-anadromous Fish Habitat (FR)	0.67	6.67
Amphibian & Reptile Habitat (AM)	6.66	6.67
Waterbird Feeding Habitat (WBF)	4.26	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.76	6.67
Pollinator Habitat (POL)	5.99	0.83
Native Plant Diversity (PD)	5.11	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.50	3.08
Water Quality Group (WQ)	10.00	6.03
Carbon Sequestration (CS)	2.58	
Fish Support Group (FISH)	0.67	6.67
Aquatic Support Group (AQ)	6.72	6.67
Terrestrial Support Group (TERR)	5.99	6.67
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		7.46
Wetland Stressors		3.06
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	2.38
Flat	6.67
Depressional	3.06
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 9**
Date(s) of assessment:	**August 2010**	Size (acres):	**0.69**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO1B**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1812260000077, 1812260000100**
Street address or location:	**W. of N. Fork Siuslaw River Rd.**
Latitude:	**43.9781**
Longitude:	**-124.0833**
Locally Significant?:	**No**
Hydrologic basin:	**171002060702**
Soil -- Mapped series:	**Waldport fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Malus fusca	**Pacific Crabapple**	***Phalaris arundiancea***	**Reed Canary Grass**
Salix hookeriana	**Hooker Willow**	***Rubus ursinus***	**Califnornia Dewberry**
Spiraea douglasii	**Douglas' Spirea**	***Carex obnupta***	**Sough Sedge**
Lonicera involucrata	**Bearberry Honeysuckle**	***Oenanthe sarmentosa***	**Water-Parsley**

Comments:

Scrub shrub (willow) dominated wetland west of North Fork Siuslaw River Road. Wetland drains beneath the road through a small culvert. Adjacent upland species include Picea sitchensis, Gaultheria shallon, Vaccinium ovatum, Myrica californica.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 9

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.46	2.17
Sediment Retention & Stabilization (SR)	7.37	4.95
Phosphorus Retention (PR)	5.40	5.28
Nitrate Removal & Retention (NR)	5.70	4.38
Thermoregulation (T)	0.42	1.25
Carbon Sequestration (CS)	2.99	
Organic Matter Export (OE)	5.47	
Aquatic Invertebrate Habitat (INV)	6.69	7.12
Anadromous Fish Habitat (FA)	0.00	4.55
Non-anadromous Fish Habitat (FR)	2.30	6.67
Amphibian & Reptile Habitat (AM)	7.12	4.00
Waterbird Feeding Habitat (WBF)	4.55	4.00
Waterbird Nesting Habitat (WBN)	0.00	3.00
Songbird, Raptor, & Mammal Habitat (SBM)	5.67	6.67
Pollinator Habitat (POL)	7.01	1.67
Native Plant Diversity (PD)	7.90	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.46	2.17
Water Quality Group (WQ)	7.37	5.28
Carbon Sequestration (CS)	2.99	
Fish Support Group (FISH)	2.30	6.67
Aquatic Support Group (AQ)	7.12	4.00
Terrestrial Support Group (TERR)	7.90	6.67
Public Use & Recognition (PU)		0.71
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.19
Wetland Stressors		3.52
Wetland Sensitivity		5.12

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.90
Slope	2.69
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 10**
Date(s) of assessment:	**August 2010**	Size (acres):	**1.34**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PSS1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1812260000077, 1812260000100**
Street address or location:	**West of North Fork Siuslaw River Road and Munsel Lake Rd.**
Latitude:	**43.9795**
Longitude:	**-124.0833**
Locally Significant?:	**No**
Hydrologic basin:	**171002060702**
Soil -- Mapped series:	**Waldport fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Ledum glandulosum	**Smooth Labrador-Tea**	***Sphagnum sp.***	**Moss**
Spiraea douglasii	**Douglas' Spirea**	***Drosera rotundifolia***	**Round-Leaf Sundew**
Salix hookeriana	**Hooker Willow**		

Comments:

Wetland on tribal property west of North Fork Siuslaw River. Dominated by a variety of native shrub and emergent vegetation.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 10

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	4.50	2.17
Sediment Retention & Stabilization (SR)	10.00	5.43
Phosphorus Retention (PR)	10.00	5.40
Nitrate Removal & Retention (NR)	10.00	4.50
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.56	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	7.40	7.87
Anadromous Fish Habitat (FA)	0.00	6.23
Non-anadromous Fish Habitat (FR)	3.69	6.67
Amphibian & Reptile Habitat (AM)	7.87	4.00
Waterbird Feeding Habitat (WBF)	6.23	4.00
Waterbird Nesting Habitat (WBN)	5.56	3.00
Songbird, Raptor, & Mammal Habitat (SBM)	5.90	6.67
Pollinator Habitat (POL)	7.39	1.67
Native Plant Diversity (PD)	5.98	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	4.50	2.17
Water Quality Group (WQ)	10.00	5.43
Carbon Sequestration (CS)	2.56	
Fish Support Group (FISH)	3.69	6.67
Aquatic Support Group (AQ)	7.87	4.00
Terrestrial Support Group (TERR)	7.39	6.67
Public Use & Recognition (PU)		10.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.94
Wetland Stressors		3.40
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	3.75
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 11**
Date(s) of assessment:	**August 2010**	Size (acres):	**7.49**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C, PUBHx**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1812144000200, 1812231100100, 1812231100101**
Street address or location:	**West of Munsel Lake Road north of Rhodo Dunes Golf Course**
Latitude:	**43.9994**
Longitude:	**-124.0865**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060702**
Soil -- Mapped series:	**Yaquina loamy fine sand, Waldport fine sand, Netarts fine sand, Dune land**
Hydrologic Source:	**Surface, Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough sedge**
Alnus rubra	**Red alder**		
Rubus spectabilis	**Salmonberry**		

Comments:

Offsite assessment performed utilizing air photos. This wetland adjoins residential development at the north end of Ocean Dunes Golf Links. The two forested portions are undeveloped, but the ponded portion is bordered to the east by a residential subdivision. One of the golf course's tees is located west of the pond, with its associated fairway to the south. Portions of this wetland obtained concurrence for prior wetland delineations; the most recent being WD2009-0011.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 11

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	2.76	6.81
Sediment Retention & Stabilization (SR)	6.93	5.59
Phosphorus Retention (PR)	5.15	5.51
Nitrate Removal & Retention (NR)	6.58	5.26
Thermoregulation (T)	2.78	2.50
Carbon Sequestration (CS)	2.50	
Organic Matter Export (OE)	4.86	
Aquatic Invertebrate Habitat (INV)	5.86	7.35
Anadromous Fish Habitat (FA)	0.00	4.52
Non-anadromous Fish Habitat (FR)	2.83	6.67
Amphibian & Reptile Habitat (AM)	4.86	7.33
Waterbird Feeding Habitat (WBF)	4.52	4.00
Waterbird Nesting Habitat (WBN)	4.36	3.00
Songbird, Raptor, & Mammal Habitat (SBM)	7.35	6.67
Pollinator Habitat (POL)	9.01	5.00
Native Plant Diversity (PD)	7.40	7.72

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	2.76	6.81
Water Quality Group (WQ)	6.93	5.59
Carbon Sequestration (CS)	2.50	
Fish Support Group (FISH)	2.83	6.67
Aquatic Support Group (AQ)	5.86	7.33
Terrestrial Support Group (TERR)	9.01	7.72
Public Use & Recognition (PU)		0.95
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		5.32
Wetland Stressors		3.16
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	1.31
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 12**
Date(s) of assessment:	**Fall 2010**	Size (acres):	**56.30**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PEMC, PFO4C, PSS1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Depressional, Flats**

TRS quarter section tax lot:	**1812110000077, 1812110000100, 1812110000200, 1812110000201, 1812110000202, 1812110001300, 1812110001302, 1812110001800, 1812110002000, 1812110002300, 1812110002300, 1812110002400, 1812110002500, 1812113200300, 1812113200400, 1812113201600, 1812113300100, 1812120000702**
Street address or location:	**South of Taylor Road.**
Latitude:	**44.0181**
Longitude:	**-124.0942**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand, Netarts fine sand, Dune land**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore Pine**	***Carex obnupta***	**Slough Sedge**
Vaccinium uliginosum	**Bog Blueberry**	***Juncus falcatus***	**Sickle-Leaf Rush**
Spiraea douglasii	**Douglas' Spirea**	***Claytonia sibirica***	**Western Springbeauty**
Salix hookeriana	**Hooker Willow**	***Carex viridula***	**Little Green Sedge**
		Deschampsia cespitosa	**Tufted Hairgrass**

Comments:

Complex of primarily forested wetlands located in largely undeveloped areas east of Hwy 101. Includes areas of open water. Areas without a shore pine overstory are often dominated by bog blueberry and sedges and rushes. Seasonally inundated by a shallow groundwater table. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2001-0264, WD2002-0108 & WD2009-0009.

COWARDIN CODES: E2FO = estuarine forested E2SS = estuarine scrub shrub E2EM = estuarine emergent

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 12

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.25	2.17
Sediment Retention & Stabilization (SR)	10.00	4.92
Phosphorus Retention (PR)	10.00	4.94
Nitrate Removal & Retention (NR)	10.00	4.44
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.34	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	7.48	8.39
Anadromous Fish Habitat (FA)	0.00	5.79
Non-anadromous Fish Habitat (FR)	3.33	6.67
Amphibian & Reptile Habitat (AM)	8.39	7.33
Waterbird Feeding Habitat (WBF)	5.79	4.00
Waterbird Nesting Habitat (WBN)	6.17	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	7.53	6.67
Pollinator Habitat (POL)	7.76	5.00
Native Plant Diversity (PD)	7.50	7.77

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.25	2.17
Water Quality Group (WQ)	10.00	4.94
Carbon Sequestration (CS)	2.34	
Fish Support Group (FISH)	3.33	6.67
Aquatic Support Group (AQ)	8.39	7.33
Terrestrial Support Group (TERR)	7.76	7.77
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.70
Wetland Stressors		3.44
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.50
Flat	5.52
Depressional	6.11
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	Wetland 13
Date(s) of assessment:	**August 2010**	Size (acres):	**17.44**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PEMC, PFO4C, PSS1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat**

TRS quarter section tax lot:	**1812020000204, 1812020000205, 1812020000403, 1812110000100, 1812110000202, 1812110002200**
Street address or location:	**North of Munsel Lake Road, south of Taylor Road**
Latitude:	**44.0255**
Longitude:	**-124.0885**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand, Dune land**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Spiraea douglasii	**Douglas' Spirea**	***Carex viridula***	**Little Green Sedge**
		Juncus falcatus	**Sickle-Leaf Rush**
		Eleocharis ovata	**Ovate Spikerush**
		Ranunculus flammula	**Spearwort Butter-Cup**
		Potentilla anserina	**Silverweed**

Comments:

Complex of wetlands isolated hydrologically from each other. These wetlands are shallow depressions in the sand, seasonally inundated and dominated by low growing herbaceous vegetation. They have been grouped because they are similar in character, being located at the eastern edge of the forested west portion of the large dunal area west of Collard and Clear Lakes. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2001-0264.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 13

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	5.75	2.17
Sediment Retention & Stabilization (SR)	10.00	5.35
Phosphorus Retention (PR)	10.00	5.82
Nitrate Removal & Retention (NR)	10.00	4.49
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.70	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	5.25	7.01
Anadromous Fish Habitat (FA)	0.00	5.36
Non-anadromous Fish Habitat (FR)	2.32	6.67
Amphibian & Reptile Habitat (AM)	7.01	6.67
Waterbird Feeding Habitat (WBF)	5.36	4.00
Waterbird Nesting Habitat (WBN)	5.45	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.35	6.67
Pollinator Habitat (POL)	4.59	0.00
Native Plant Diversity (PD)	5.90	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	5.75	2.17
Water Quality Group (WQ)	10.00	5.82
Carbon Sequestration (CS)	1.70	
Fish Support Group (FISH)	2.32	6.67
Aquatic Support Group (AQ)	7.01	6.67
Terrestrial Support Group (TERR)	5.90	6.67
Public Use & Recognition (PU)		0.48
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		7.46
Wetland Stressors		5.27
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	10.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 14**
Date(s) of assessment:	**August 2010**	Size (acres):	**23.78**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PEMC, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Depressional, Flats**

TRS quarter section tax lot:	**1812020000200, 1812020000205, 1812020000400, 1812020000402, 1812020000403, 1812020000601, 1812110000100**
Street address or location:	**Confined by east end of Friendly Acres and dune complex west of Clear Lake**
Latitude:	**44.0341**
Longitude:	**-124.0899**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Vaccinium uliginosum	**Bog Blueberry**	***Carex obnupta***	**Slough Sedge**
Spiraea douglasii	**Douglas Spirea**	***Deschampsia cespitosa***	**Tufted Hairgrass**
Pinus contorta	**Shore Pine**	***Juncus balticus***	**Baltic Rush**
		Juncus acuminatus	**Taper-Tip Rush**
		Juncus effusus	**Soft Rush**
		Juncus falcatus	**Sickle-Leaf Rush**

Comments:

Complex of isolated wetlands dominated by bog blueberry and Douglas spirea with an overstory of Pinus contorta. Seasonally inundated. These wetlands were grouped because they are located in the same geomorphic position, are influenced by the local groundwater table, and have similar adjacent land use patterns.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 14

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	4.25	2.17
Sediment Retention & Stabilization (SR)	10.00	5.07
Phosphorus Retention (PR)	10.00	4.94
Nitrate Removal & Retention (NR)	10.00	4.11
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.97	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	7.29	8.04
Anadromous Fish Habitat (FA)	0.00	5.04
Non-anadromous Fish Habitat (FR)	3.52	6.67
Amphibian & Reptile Habitat (AM)	8.04	6.67
Waterbird Feeding Habitat (WBF)	5.04	4.00
Waterbird Nesting Habitat (WBN)	5.44	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.66	6.67
Pollinator Habitat (POL)	6.94	0.00
Native Plant Diversity (PD)	6.16	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	4.25	2.17
Water Quality Group (WQ)	10.00	5.07
Carbon Sequestration (CS)	1.97	
Fish Support Group (FISH)	3.52	6.67
Aquatic Support Group (AQ)	8.04	6.67
Terrestrial Support Group (TERR)	6.94	6.67
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		7.46
Wetland Stressors		1.56
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	1.00
Slope	1.25
Flat	4.74
Depressional	10.28
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 15**
Date(s) of assessment:	**August 2010**	Size (acres):	**3.83**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Lacustrine**

TRS quarter section tax lot:	**1812010000200, 1812010000206**
Street address or location:	**West edge of Collard Lake**
Latitude:	**44.0363**
Longitude:	**-124.0799**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Bullards-Ferrelo loams**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**		
Tsuga heterophylla	**Western hemlock**		

Comments:

Forested wetland along the west edge of Collard Lake. Likely dominated by spruce and shore pine. Wetland assessment was completed entirely from offsite; mostly from aerial photo interpretation.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 15

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	2.63	2.33
Sediment Retention & Stabilization (SR)	5.09	4.85
Phosphorus Retention (PR)	2.55	5.33
Nitrate Removal & Retention (NR)	4.66	4.69
Thermoregulation (T)	3.28	6.67
Carbon Sequestration (CS)	2.38	
Organic Matter Export (OE)	7.14	
Aquatic Invertebrate Habitat (INV)	5.54	6.99
Anadromous Fish Habitat (FA)	6.68	10.00
Non-anadromous Fish Habitat (FR)	3.80	6.67
Amphibian & Reptile Habitat (AM)	4.47	6.67
Waterbird Feeding Habitat (WBF)	5.46	4.00
Waterbird Nesting Habitat (WBN)	5.21	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.99	6.67
Pollinator Habitat (POL)	7.02	0.00
Native Plant Diversity (PD)	7.84	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	2.63	2.33
Water Quality Group (WQ)	5.09	6.67
Carbon Sequestration (CS)	2.38	
Fish Support Group (FISH)	6.68	10.00
Aquatic Support Group (AQ)	7.14	6.67
Terrestrial Support Group (TERR)	7.84	6.67
Public Use & Recognition (PU)		0.48
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.18
Wetland Stressors		1.10
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	10.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 16**
Date(s) of assessment:	**August 2010**	Size (acres):	**2.93**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PEMC, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat**

TRS quarter section tax lot:	**1812020000400, 1812020000402, 1812020000601, 1812023005602**
Street address or location:	**End of Friendly Acres Road**
Latitude:	**44.0317**
Longitude:	**-124.0936**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand, Waldport fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough Sedge**
Spiraea douglasii	**Douglas' Spirea**	***Juncus sp.***	**Rush**
Vaccinium uliginosum	**Bog Blueberry**		

Comments:

Isolated wetland dominated by bog blueberry and Douglas' spirea with an overstory of Pinus contorta. These wetlands are seasonally inundated.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 16

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.25	2.17
Sediment Retention & Stabilization (SR)	10.00	4.85
Phosphorus Retention (PR)	10.00	5.07
Nitrate Removal & Retention (NR)	10.00	4.57
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.26	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	6.00	7.67
Anadromous Fish Habitat (FA)	0.00	4.35
Non-anadromous Fish Habitat (FR)	0.74	6.67
Amphibian & Reptile Habitat (AM)	7.67	7.33
Waterbird Feeding Habitat (WBF)	4.35	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.31	6.67
Pollinator Habitat (POL)	6.15	5.00
Native Plant Diversity (PD)	6.68	6.70

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.25	2.17
Water Quality Group (WQ)	10.00	5.07
Carbon Sequestration (CS)	2.26	
Fish Support Group (FISH)	0.74	6.67
Aquatic Support Group (AQ)	7.67	7.33
Terrestrial Support Group (TERR)	6.68	6.70
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.30
Wetland Stressors		3.08
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.75
Flat	6.46
Depressional	1.94
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	Wetland 17
Date(s) of assessment:	**August 2010**	Size (acres):	**2.49**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C, PEMY**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat**

TRS quarter section tax lot:	**1812020000200, 1812022000402, 1812022402300, 181202402400, 1812022402500, 1812022402600, 1812022402700**
Street address or location:	**North of Brownings Corner**
Latitude:	**44.0374**
Longitude:	**-124.0938**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand, Waldport fine sand, Dune land**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore Pine**	***Carex obnupta***	**Slough Sedge**
Vaccinium uliginosum	**Bog Blueberry**	***Juncus effusus***	**Soft Rush**
		Juncus falcatus	**Sickle-Leaf Rush**
		Polytrichum sp.	**Moss**

Comments:

Isolated wetlands dominated by Pinus contorta in the overstory. These wetlands were grouped because they are located in the same geomorphic position, are influenced by the local groundwater table, and have similar adjacent land use patterns. North of the road in an interdunal area. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2000-0275

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 17

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.25	2.17
Sediment Retention & Stabilization (SR)	10.00	5.33
Phosphorus Retention (PR)	10.00	5.57
Nitrate Removal & Retention (NR)	10.00	4.90
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.59	0.00
Organic Matter Export (OE)	0.00	0.00
Aquatic Invertebrate Habitat (INV)	6.06	7.87
Anadromous Fish Habitat (FA)	0.00	4.61
Non-anadromous Fish Habitat (FR)	2.05	6.67
Amphibian & Reptile Habitat (AM)	7.87	7.33
Waterbird Feeding Habitat (WBF)	4.61	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.67	6.67
Pollinator Habitat (POL)	6.67	5.00
Native Plant Diversity (PD)	7.09	6.99

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.25	2.17
Water Quality Group (WQ)	10.00	5.57
Carbon Sequestration (CS)	2.59	0.00
Fish Support Group (FISH)	2.05	6.67
Aquatic Support Group (AQ)	7.87	7.33
Terrestrial Support Group (TERR)	7.09	6.99
Public Use & Recognition (PU)	0.00	0.00
Provisioning Services (PS)	0.00	0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		5.30
Wetland Stressors		5.01
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.75
Flat	5.83
Depressional	5.28
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 18**
Date(s) of assessment:	**August 2010**	Size (acres):	**0.58**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Depressional outflow**

TRS quarter section tax lot:	**1812022400100, 1812022400500, 1812022402001**
Street address or location:	**North of Brownings Corner, east of Hwy 101**
Latitude:	**44.0366**
Longitude:	**-124.0983**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Malus fusca	**Pacific Crabapple**	***Carex obnupta***	**Slough Sedge**
Spiraea douglasii	**Douglas' Spirea**		
Lonicera involucrata	**Bearberry Honeysuckle**		

Comments:

Dunal depressions with seasonal ponded water. Culverted under Brownings Corner, drains to south.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 18

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.85	2.33
Sediment Retention & Stabilization (SR)	6.46	5.31
Phosphorus Retention (PR)	4.78	5.78
Nitrate Removal & Retention (NR)	5.16	4.83
Thermoregulation (T)	0.83	1.67
Carbon Sequestration (CS)	3.08	
Organic Matter Export (OE)	5.81	
Aquatic Invertebrate Habitat (INV)	5.56	6.92
Anadromous Fish Habitat (FA)	0.00	3.89
Non-anadromous Fish Habitat (FR)	1.59	6.67
Amphibian & Reptile Habitat (AM)	6.92	7.33
Waterbird Feeding Habitat (WBF)	3.89	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.85	6.67
Pollinator Habitat (POL)	6.25	5.00
Native Plant Diversity (PD)	7.71	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.85	2.33
Water Quality Group (WQ)	6.46	5.78
Carbon Sequestration (CS)	3.08	
Fish Support Group (FISH)	1.59	6.67
Aquatic Support Group (AQ)	6.92	7.33
Terrestrial Support Group (TERR)	7.71	6.67
Public Use & Recognition (PU)		1.19
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		5.18
Wetland Stressors		2.93
Wetland Sensitivity		5.08

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.90
Slope	2.38
Flat	5.42
Depressional	3.06
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	Wetland 19
Date(s) of assessment:	**July 15, 2010**	Size (acres):	**4.47**
Data Sheet Number(s):	**3**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Depressional**

TRS quarter section tax lot:	**1812023002000, 1812023002100, 1812023005300, 1812023005400, 1812023005500**
Street address or location:	**South of Friendly Acres, east of Hwy. 101**
Latitude:	**44.0318**
Longitude:	**-124.0983**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore Pine**		
Ledum glandulosum	**Smooth Labrador-Tea**		
Vaccinium uliginosum	**Bog Blueberry**		
Salix hookeriana	**Hooker Willow**		

Comments:

Forested shrub wetland in depression east of Hwy 101. Wetland is bordered on all sides by residential development. Adjacent upland species include Pinus contorta, Vaccinium ovatum, Rhododendron macrophyllum. All or a portion of this wetland obtained concurrence for a prior wetland delineation: WD2005-0281.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 19

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.25	2.17
Sediment Retention & Stabilization (SR)	10.00	5.04
Phosphorus Retention (PR)	10.00	5.36
Nitrate Removal & Retention (NR)	10.00	4.49
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.14	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	6.32	7.31
Anadromous Fish Habitat (FA)	0.00	5.11
Non-anadromous Fish Habitat (FR)	2.64	3.33
Amphibian & Reptile Habitat (AM)	7.31	6.67
Waterbird Feeding Habitat (WBF)	5.11	4.00
Waterbird Nesting Habitat (WBN)	5.19	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.89	6.67
Pollinator Habitat (POL)	6.53	0.00
Native Plant Diversity (PD)	6.17	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.25	2.17
Water Quality Group (WQ)	10.00	5.36
Carbon Sequestration (CS)	2.14	
Fish Support Group (FISH)	2.64	5.11
Aquatic Support Group (AQ)	7.31	6.67
Terrestrial Support Group (TERR)	6.53	6.67
Public Use & Recognition (PU)		0.71
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.16
Wetland Stressors		2.65
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.25
Flat	5.36
Depressional	6.94
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 20**
Date(s) of assessment:	**August 2010**	Size (acres):	**1.97**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat**

TRS quarter section tax lot:	**1812023002500, 1812023002501, 1812023002700, 1812023005601, 1812023005602**
Street address or location:	**South of Friendly Acres, eat of Hwy. 101**
Latitude:	**44.03**
Longitude:	**-124.0967**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Ledum glandulosum	**Smooth Labrador-Tea**	***Deschampsia cespitosa***	**Tufted Hairgrass**
Vaccinium uliginosum	**Bog Blueberry**	***Juncus acuminatus***	**Taper-Tip Rush**
Spiraea douglasii	**Douglas' Spirea**		

Comments:

Includes isolated wetland with seasonal inundation just east of Hwy 101, as well as smaller, apparently isolated wetlands to the east. Residential development common in the vicinity of these wetlands. Adjacent upland species include: Pinus contorta, Vaccinium ovatum, Rhododendron macrophyllum. These wetlands were grouped because they are located in the same geomorphic position, have similar vegatation communities and have similar adjoining land use patterns.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 20

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.25	2.17
Sediment Retention & Stabilization (SR)	10.00	5.02
Phosphorus Retention (PR)	10.00	5.36
Nitrate Removal & Retention (NR)	10.00	4.49
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.41	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	5.80	7.34
Anadromous Fish Habitat (FA)	0.00	4.37
Non-anadromous Fish Habitat (FR)	0.83	6.67
Amphibian & Reptile Habitat (AM)	7.34	7.33
Waterbird Feeding Habitat (WBF)	4.37	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.06	6.67
Pollinator Habitat (POL)	6.01	5.00
Native Plant Diversity (PD)	6.05	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.25	2.17
Water Quality Group (WQ)	10.00	5.36
Carbon Sequestration (CS)	2.41	
Fish Support Group (FISH)	0.83	6.67
Aquatic Support Group (AQ)	7.34	7.33
Terrestrial Support Group (TERR)	6.06	6.67
Public Use & Recognition (PU)		1.19
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		4.68
Wetland Stressors		3.46
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.75
Flat	6.46
Depressional	1.94
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 21**
Date(s) of assessment:	**August 2010**	Size (acres):	**23.01**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1712350003400, 1712350003500, 1812022001901, 1812022003600, 1812022003700, 1812022003800, 1812022003900, 1812023005700, 1812023005800, 1812023005900, 1812023006000, 1812030000100**
Street address or location:	**West of Brownings Corner, west of Hwy 101**
Latitude:	**44.0368**
Longitude:	**-124.1025**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand, Netarts fine sand**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough sedge**
Salix spp.	**Willow**		

Comments:

Area to north of old horseradish nursery. These wetlands were grouped because they are located in the same geomorphic position and have similar adjacent land use patterns. Northern end is mostly undisturbed; southern portion less so due to proximity to nursery and other development. Large high quality wetland which extends north, flanked by dune on the west. Wetland boundaries determined primarily through air photo interpretation. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2007-0674 & WD2007-0255.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 21

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	4.50	3.58
Sediment Retention & Stabilization (SR)	10.00	5.50
Phosphorus Retention (PR)	10.00	6.49
Nitrate Removal & Retention (NR)	10.00	4.97
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	2.05	0.00
Organic Matter Export (OE)	0.00	0.00
Aquatic Invertebrate Habitat (INV)	5.93	7.84
Anadromous Fish Habitat (FA)	0.00	4.91
Non-anadromous Fish Habitat (FR)	2.95	6.67
Amphibian & Reptile Habitat (AM)	7.84	7.33
Waterbird Feeding Habitat (WBF)	4.91	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.99	6.67
Pollinator Habitat (POL)	6.97	5.00
Native Plant Diversity (PD)	6.30	7.22

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	4.50	3.58
Water Quality Group (WQ)	10.00	6.49
Carbon Sequestration (CS)	2.05	0.00
Fish Support Group (FISH)	2.95	6.67
Aquatic Support Group (AQ)	7.84	7.33
Terrestrial Support Group (TERR)	6.99	7.22
Public Use & Recognition (PU)	0.00	0.00
Provisioning Services (PS)	0.00	0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		3.68
Wetland Stressors		4.60
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.81
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	Wetland 22
Date(s) of assessment:	**7/15/2010**	Size (acres):	**1.56**
Data Sheet Number(s):	**4**	Cowardin Class(es):	**L2ABY**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Lacustrine**

TRS quarter section tax lot:	**1812141000113, 1812141000114, 1812141001200, 1812141001300, 1812141001400, 1812141001500, 1812141001500, 1812141001600**
Street address or location:	**Northwest end of Munsel Lake**
Latitude:	**44.00888**
Longitude:	**-124.08714**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand**
Hydrologic Source:	**Surface**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**red alder**	***Scirpus micrpcarpus***	**Small fruited bulrush**
Salix sp.	**willow**	***Carex obnupta***	**slough sedge**
Thuja plicata	**western red cedar**		

Comments:

Northwest end of Munsel Lake. Begins near 48-inch culvert beneath Martin Road. This wetland is the littoral area of the lake. Banks are relatively steep. Area is inundated year-round.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 22

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.13	2.67
Sediment Retention & Stabilization (SR)	4.21	4.60
Phosphorus Retention (PR)	1.58	6.11
Nitrate Removal & Retention (NR)	4.05	4.52
Thermoregulation (T)	3.67	6.67
Carbon Sequestration (CS)	1.40	
Organic Matter Export (OE)	6.97	
Aquatic Invertebrate Habitat (INV)	5.25	7.06
Anadromous Fish Habitat (FA)	7.06	10.00
Non-anadromous Fish Habitat (FR)	5.45	7.86
Amphibian & Reptile Habitat (AM)	3.51	6.67
Waterbird Feeding Habitat (WBF)	5.71	4.00
Waterbird Nesting Habitat (WBN)	5.92	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	4.12	6.67
Pollinator Habitat (POL)	3.63	0.83
Native Plant Diversity (PD)	6.34	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.13	2.67
Water Quality Group (WQ)	4.21	6.67
Carbon Sequestration (CS)	1.40	
Fish Support Group (FISH)	7.06	10.00
Aquatic Support Group (AQ)	6.97	6.67
Terrestrial Support Group (TERR)	6.34	6.67
Public Use & Recognition (PU)		1.19
Provisioning Services (PS)		2.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		7.79
Wetland Stressors		3.65
Wetland Sensitivity		3.75

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	10.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 23**
Date(s) of assessment:	**Fall 2010**	Size (acres):	**60.57**
Data Sheet Number(s):	**6**	Cowardin Class(es):	**PEMC, PEMY, PFO1C, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**DCNP, DCP, Slope**

TRS quarter section tax lot:	**1712340000400, 1812030000100, 1812030000200, 1812033400402**
Street address or location:	**North of Heceta Beach Road**
Latitude:	**44.0378**
Longitude:	**-124.112**
Locally Significant?:	**No**
Hydrologic basin:	**171002050704**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand, Dune land**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough sedge**
Salix spp	**Willows**	***Scirpus microcarpus***	**Smallfruit bulrush**

Comments:

Large high quality wetland north of Heceta Beach Road. Margins defined by active to partially stabilized dunes. Lots of snags, structurally diverse vegetation dominated by shore pine, though lowlands are dominated by willow. Extensive seasonal, and in some depressions annual, ponding.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 23

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	4.50	2.17
Sediment Retention & Stabilization (SR)	10.00	5.45
Phosphorus Retention (PR)	10.00	5.44
Nitrate Removal & Retention (NR)	10.00	4.11
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.67	0.00
Organic Matter Export (OE)	0.00	0.00
Aquatic Invertebrate Habitat (INV)	5.88	8.28
Anadromous Fish Habitat (FA)	0.00	5.47
Non-anadromous Fish Habitat (FR)	4.26	3.33
Amphibian & Reptile Habitat (AM)	8.28	7.33
Waterbird Feeding Habitat (WBF)	5.47	5.11
Waterbird Nesting Habitat (WBN)	5.48	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.66	6.67
Pollinator Habitat (POL)	6.72	5.00
Native Plant Diversity (PD)	6.38	7.21

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	4.50	2.17
Water Quality Group (WQ)	10.00	5.45
Carbon Sequestration (CS)	1.67	0.00
Fish Support Group (FISH)	4.26	5.47
Aquatic Support Group (AQ)	8.28	7.33
Terrestrial Support Group (TERR)	6.72	7.21
Public Use & Recognition (PU)	0.00	10.00
Provisioning Services (PS)	0.00	0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		5.93
Wetland Stressors		4.23
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 24**
Date(s) of assessment:	**August 12, 2010**	Size (acres):	**46.66**
Data Sheet Number(s):	**14**	Cowardin Class(es):	**PFO4C, PSS1C, PUBH**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**DCP**

TRS quarter section tax lot:	**1812030000200, 1812030000300, 1812030000300, 1812033300100, 1812033300200, 1812033300300, 1812033300400, 1812033400077, 1812033400200, 1812033400300, 1812033400401, 1812033400402, 1812033400405, 1812033400503, 1812041100077, 1812041100600, 1812041100700, 1812041104701, 1812041104705, 1812041104710, 1812041402302, 1812041402304, 1812100000102, 1812100000104, 1812100000106, 1812100000120, 1812100000121, 1812101000077, 1812101000700, 1812101000800, 1812101001300, 1812101001400, 1812101001500, 1812101001600, 1812101001700, 1812101001800, 1812101001900, 1812101002000, 1812101010400, 1812101010400, 1812101200077, 1812101200100, 1812101200200, 1812101200300, 1812101200400, 1812101200500, 1812101201100, 1812101201200, 1812101201600, 1812101300100, 1812101300200, 1812101300500, 1812102100300, 1812102100400, 1812104000200**
Street address or location:	**North of Heceta Beach Road, Heceta Lake**
Latitude:	**44.0312**
Longitude:	**-124.1188**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002050704**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand, Dune land**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough sedge**
Salix hookeriana	**Hookers willow**		
Spiraea douglasii	**Douglas spirea**		
Alnus rubra	**Red alder**		

Comments:

A grouping of wetlands in the bottom of interdunal swales. These wetlands were grouped because they are located in the same geomorphic position and have similar adjacent land use patterns. This is a large, high quality wetland with perennial open water through the deepest depressions. The remaining areas are generally only seasonally inundated. Residential development to south. Largely forested or shrubby, except where inundation is common, this wetland has an abundance of snags. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2001-0297 & WD2001-0401.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 24

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	5.75	2.17
Sediment Retention & Stabilization (SR)	10.00	5.31
Phosphorus Retention (PR)	10.00	5.61
Nitrate Removal & Retention (NR)	10.00	4.24
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.47	0.00
Organic Matter Export (OE)	0.00	0.00
Aquatic Invertebrate Habitat (INV)	6.29	7.82
Anadromous Fish Habitat (FA)	0.00	4.95
Non-anadromous Fish Habitat (FR)	3.54	6.67
Amphibian & Reptile Habitat (AM)	7.82	7.33
Waterbird Feeding Habitat (WBF)	4.95	4.00
Waterbird Nesting Habitat (WBN)	4.44	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.34	6.67
Pollinator Habitat (POL)	7.08	5.00
Native Plant Diversity (PD)	5.72	7.09

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	5.75	2.17
Water Quality Group (WQ)	10.00	5.61
Carbon Sequestration (CS)	1.47	0.00
Fish Support Group (FISH)	3.54	6.67
Aquatic Support Group (AQ)	7.82	7.33
Terrestrial Support Group (TERR)	7.08	7.09
Public Use & Recognition (PU)	0.00	0.48
Provisioning Services (PS)	0.00	0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.05
Wetland Stressors		2.23
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 25**
Date(s) of assessment:	**Fall 2010**	Size (acres):	**9.69**
Data Sheet Number(s):	**8**	Cowardin Class(es):	**PSS1C, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1812030000200, 1812033300500, 1812033300600, 1812040000102, 1812040000110, 1812040000120, 1812040000121, 1812041402305, 1812044404300, 1812044404400**
Street address or location:	**North of Heceta Beach Road**
Latitude:	**44.0333**
Longitude:	**-124.1251**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002050704**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore Pine**	***Carex obnupta***	**Slough Sedge**
Malus fusca	**Pacific Crabapple**	***Potentila palustris***	**Marsh cinquefoil**
Ledum glandulosum	**Smooth Labrador-Tea**	***Carex sitchensis***	**Sitka Sedge**
Myrica californica	**Pacific Wax-Myrtle**	***Eleocharis sp.***	**Spikerush**
Salix hookeriana	**Hooker Willow**	***Juncus sp.***	**Rush**
Lonicera involucrata	**Bearberry honeysuckle**	***Lysichitum americanum***	**American Skunk-Cabbage**
Spiraea douglasii	**Douglas' Spirea**		

Comments:

Predominantly forest and scrub shrub wetland, with open water and emergent components. Drains west in channel that is culverted under 4th Street, drains to ocean. Upland species: Vaccinium ovatum, Gaultheria shallon, Pinus contorta.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 25

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.00	2.17
Sediment Retention & Stabilization (SR)	5.52	5.02
Phosphorus Retention (PR)	2.59	5.28
Nitrate Removal & Retention (NR)	5.11	4.38
Thermoregulation (T)	1.39	3.33
Carbon Sequestration (CS)	1.56	
Organic Matter Export (OE)	7.23	
Aquatic Invertebrate Habitat (INV)	5.90	6.98
Anadromous Fish Habitat (FA)	0.00	5.41
Non-anadromous Fish Habitat (FR)	2.59	3.33
Amphibian & Reptile Habitat (AM)	6.98	7.33
Waterbird Feeding Habitat (WBF)	5.41	4.00
Waterbird Nesting Habitat (WBN)	5.09	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.55	6.67
Pollinator Habitat (POL)	5.83	5.00
Native Plant Diversity (PD)	3.50	6.70

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.00	2.17
Water Quality Group (WQ)	5.52	5.28
Carbon Sequestration (CS)	1.56	
Fish Support Group (FISH)	2.59	5.41
Aquatic Support Group (AQ)	7.23	7.33
Terrestrial Support Group (TERR)	5.83	6.70
Public Use & Recognition (PU)		1.19
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		5.18
Wetland Stressors		3.73
Wetland Sensitivity		3.45

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	1.50
Slope	1.81
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 26**
Date(s) of assessment:	**August 2010**	Size (acres):	**1.23**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1812033300077, 1812033302201, 1812033302300, 1812033302400, 1812033302500, 1812033302600, 1812033400077, 1812033400600, 1812033401000**
Street address or location:	**South of Heceta Beach Road**
Latitude:	**44.0296**
Longitude:	**-124.1201**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand, Waldport fine sand, Netarts fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore Pine**	***Carex obnupta***	**Slough Sedge**
Salix hookeriana	**Hooker Willow**		

Comments:

Series of small, apparently isolated forested wetlands south of Heceta Beach Road. Dominated by willows. Adjacent upland species: Myrica californica, Gaultheria shallon, Rhamnus purshiana, Spiraea douglasii.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 26

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.25	2.42
Sediment Retention & Stabilization (SR)	10.00	5.03
Phosphorus Retention (PR)	10.00	5.57
Nitrate Removal & Retention (NR)	10.00	3.99
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.64	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	5.11	6.00
Anadromous Fish Habitat (FA)	0.00	4.19
Non-anadromous Fish Habitat (FR)	2.89	6.67
Amphibian & Reptile Habitat (AM)	5.98	6.67
Waterbird Feeding Habitat (WBF)	4.19	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	4.04	6.67
Pollinator Habitat (POL)	4.36	0.00
Native Plant Diversity (PD)	5.95	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.25	2.42
Water Quality Group (WQ)	10.00	5.57
Carbon Sequestration (CS)	1.64	
Fish Support Group (FISH)	2.89	6.67
Aquatic Support Group (AQ)	5.98	6.67
Terrestrial Support Group (TERR)	5.95	6.67
Public Use & Recognition (PU)		1.19
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		4.35
Wetland Stressors		3.36
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.81
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 27**
Date(s) of assessment:	**August 12, 2010**	Size (acres):	**89.97**
Data Sheet Number(s):	**15**	Cowardin Class(es):	**PEMC, PEMY, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat**

TRS quarter section tax lot:

1812023002901, 1812023003000, 1812023003100, 1812023003300, 1812023003400, 1812023003500, 1812023003700, 1812023003800, 1812023003805, 1812030000300, 1812030000500, 1812101000077, 1812101000200, 1812101000900, 1812101002300, 1812101002400, 1812101002500, 1812101003000, 1812101003300, 1812101003400, 1812101003500, 1812101003600, 1812101003700, 1812101003800, 1812101004600, 1812101004700, 1812101004900, 1812101005000, 1812101005100, 1812101005200, 1812101005300, 1812101005400, 1812101005500, 1812101005600, 1812101005700, 1812101005800, 1812101005900, 1812101006000, 1812101006900, 1812101007100, 1812101007200, 1812101007300, 1812101007400, 1812101007500, 1812101007600, 1812101007700, 1812101008100, 1812101008200, 1812101008300, 1812101008400, 1812101008500, 1812101008600, 1812101008700, 1812101008800, 1812101008900, 1812101009000, 1812101009100, 1812101009200, 1812101009300, 1812101009500, 1812101009600, 1812101009800, 1812101009900, 1812101010000, 1812101010200, 1812101010300, 1812104000101, 1812110000077, 1812110000600, 1812110001500, 1812110002600, 1812110002700, 1812110002800, 1812110002900, 1812110003000

Street address or location:	**West of Hwy 101 North of Heceta Beach Road**
Latitude:	**44.0277**
Longitude:	**-124.1062**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Dune land, Yaquina loamy fine sand, Netarts fine sand, Waldport fine sand**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Spiraea douglasii	**Douglas' Spirea**	***Carex obnupta***	**Slough Sedge**
Ledum glandulosum	**Smooth Labrador-Tea**	***Juncus ensifolius***	**Dagger-Leaf Rush**
Vaccinium uliginosum	**Bog Blueberry**	***Lysichitum americanum***	**American Skunk-Cabbage**
Salix hookeriana	**Hooker Willow**	***Blechnum spicant***	**Deer Fern**
Pinus contorta	**Shore pine**	***Deschampsia cespitosa***	**Tufted Hairgrass**

Comments:

Large high quality wetland. These wetlands were grouped because they are located in the same geomorphic position, are influenced by the local groundwater table, and have similar adjacent land use patterns. Northern portion is located on BLM land; the southern portion is surrounded by a developing residential area. A 0.6 acre wetland mitigation site is located in the southern portion of the wetland, north of the development. Dunes border the wetland on all sides across its northern extent. Adjacent upland species include: Pinus contorta, Gaultheria shallon, Vaccinium ovatum, Rhododendron, Rhamnus. Portions of this wetland obtained concurrence for a prior wetland delineation: WD1997-0286 & WD2001-0401.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 27

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.50	2.67
Sediment Retention & Stabilization (SR)	10.00	5.50
Phosphorus Retention (PR)	10.00	6.28
Nitrate Removal & Retention (NR)	10.00	4.88
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.93	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	5.00	6.78
Anadromous Fish Habitat (FA)	0.00	4.73
Non-anadromous Fish Habitat (FR)	3.22	2.36
Amphibian & Reptile Habitat (AM)	6.78	7.33
Waterbird Feeding Habitat (WBF)	4.73	7.33
Waterbird Nesting Habitat (WBN)	4.84	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.23	6.67
Pollinator Habitat (POL)	5.35	5.00
Native Plant Diversity (PD)	5.34	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.50	2.67
Water Quality Group (WQ)	10.00	6.28
Carbon Sequestration (CS)	1.93	
Fish Support Group (FISH)	3.22	4.73
Aquatic Support Group (AQ)	6.78	7.33
Terrestrial Support Group (TERR)	5.35	6.67
Public Use & Recognition (PU)		1.90
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		4.85
Wetland Stressors		3.33
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	10.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 28**
Date(s) of assessment:	**August 2010**	Size (acres):	**5.85**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO1C, PFO4C, PUBH**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Slope**

TRS quarter section tax lot:	**1812104000077, 1812104000101, 1812104000605, 1812104000702, 1812104000703, 1812113200077, 1812113200200, 1812113200900, 1812113201000, 1812113201400, 1812113201500, 1812113202100**
Street address or location:	**North of Heceta Beach Road, west of Hwy 101**
Latitude:	**44.0191**
Longitude:	**-124.1046**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Netarts fine sand, Yaquina loamy fine sand, Waldport find sand**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Spiraea douglasii	**Douglas' Spirea**	***Carex sp.***	**Sedge**
Vaccinium uliginosum	**Bog Blueberry**	***Juncus effusus***	**Soft Rush**
Ledum glandulosum	**Smooth Labrador-Tea**	***Juncus acuminatus***	**Taper-Tip Rush**
Pinus contorta	**Shore Pine**	***Juncus ensifolius***	**Dagger-Leaf Rush**
Salix hookeriana	**Hooker Willow**		
Salix lasiandra	**Pacific Willow**		

Comments:

Series of scrub shrub wetlands. Some evidence of ponded water, but no outlet. These wetlands were grouped because they are located in the same geomorphic position and have similar adjacent land use patterns. Adjacent upland includes Vaccinium ovatum, Gaultheria shallon, Cytisus scoparius, Pinus contorta, and Rhododendron macrophyllum. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2006-0116.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 28

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	2.25	2.17
Sediment Retention & Stabilization (SR)	10.00	5.04
Phosphorus Retention (PR)	10.00	5.28
Nitrate Removal & Retention (NR)	10.00	4.71
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.84	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	5.97	6.38
Anadromous Fish Habitat (FA)	0.00	3.63
Non-anadromous Fish Habitat (FR)	3.90	6.67
Amphibian & Reptile Habitat (AM)	6.38	7.33
Waterbird Feeding Habitat (WBF)	3.63	4.00
Waterbird Nesting Habitat (WBN)	4.77	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	4.37	6.67
Pollinator Habitat (POL)	5.72	5.00
Native Plant Diversity (PD)	5.85	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	2.25	2.17
Water Quality Group (WQ)	10.00	5.28
Carbon Sequestration (CS)	1.84	
Fish Support Group (FISH)	3.90	6.67
Aquatic Support Group (AQ)	6.38	7.33
Terrestrial Support Group (TERR)	5.85	6.67
Public Use & Recognition (PU)		1.19
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		4.97
Wetland Stressors		3.19
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	2.19
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 29**
Date(s) of assessment:	**August 2010**	Size (acres):	**65.14**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PEMC, PFO1C, PFO4C, PSS1C, PUBH**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Depressional, Slope**

TRS quarter section tax lot:	**1812101301400, 1812104000077, 1812104000100, 1812104000400, 1812104000500, 1812104000800, 1812104000900, 1812104001000, 1812104001100, 1812104001300, 1812104001402, 1812104001500, 1812104001600, 1812104001701, 1812104001800, 1812113200077, 1812150000200, 1812150000300, 1812150001700**
Street address or location:	**South of Heceta Beach Road, west of Hwy 101**
Latitude:	**44.0166**
Longitude:	**-124.1109**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand, Waldport find sand, Dune land, Netarts fine sand**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Vaccinium uliginosum	**Bog Blueberry**	***Carex obnupta***	**Slough Sedge**
Salix hookeriana	**Hooker Willow**	***Festuca rubra***	**Red Fescue**
		Juncus sp.	**Rush**
		Carex viridula	**Little Green Sedge**
		Juncus leseurii	**Salt Rush**
		Eleocharis palustris	**Common Spikerush**
		Ranunculus flammula	**Spearwort Butter-Cup**
		Carex sitchensis	**Sitka Sedge**

Comments:

Large, high quality wetland with a variety of open water, scrub shrub and emergent communities. These wetlands were grouped because they are located in the same geomorphic position, are influenced by the local groundwater table, and have similar adjacent land use patterns. Northern portion is located on private property; the central and southern portions are located on County property. The southern wetlands are generally defined topographically by stabilized and advancing sand dunes. Adjacent upland species: Pinus contorta, Myrica californica, Gaultheria shallon, Vaccinium ovatum, Spiraea douglasii. Portions of this wetland obtained concurrence for a prior wetland delineation: WD2007-0745 & WD2007-0747.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 29

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	4.50	2.17
Sediment Retention & Stabilization (SR)	10.00	5.13
Phosphorus Retention (PR)	10.00	5.36
Nitrate Removal & Retention (NR)	10.00	4.83
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.53	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	5.22	6.41
Anadromous Fish Habitat (FA)	0.00	4.33
Non-anadromous Fish Habitat (FR)	3.33	6.67
Amphibian & Reptile Habitat (AM)	6.41	7.33
Waterbird Feeding Habitat (WBF)	4.33	4.00
Waterbird Nesting Habitat (WBN)	4.32	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	4.71	6.67
Pollinator Habitat (POL)	4.31	5.00
Native Plant Diversity (PD)	5.43	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	4.50	2.17
Water Quality Group (WQ)	10.00	5.36
Carbon Sequestration (CS)	1.53	
Fish Support Group (FISH)	3.33	6.67
Aquatic Support Group (AQ)	6.41	7.33
Terrestrial Support Group (TERR)	5.43	6.67
Public Use & Recognition (PU)		1.90
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.07
Wetland Stressors		2.59
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 30**
Date(s) of assessment:	**August 2010**	Size (acres):	**6.88**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Depressional**

TRS quarter section tax lot:	**1812104001600, 1812150001700**
Street address or location:	**On County property between Hwy 101 and Shelter Cove Subdivision**
Latitude:	**44.0117**
Longitude:	**-124.1129**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Waldport fine sand, Yaquina loamy fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore Pine**	***Rubus ursinus***	**California Dewberry**
Spiraea douglasii	**Douglas' spirea**	***Rubus discolor***	**Himalayan Blackberry**
Vaccinium uliginosum	**Bog Blueberry**	***Deschampsia cespitosa***	**Tufted Hairgrass**
Alnus rubra	**Red Alder**	***Carex obnupta***	**Slough Sedge**
Salix hookeriana	**Hooker Willow**	***Juncus effusus***	**Soft Rush**
Rubus spectabilis	**Salmonberry**	***Juncus sp.***	**Rush**

Comments:

Series of interdunal swales surrounded by Pinus and Gaultheria dominated upland. Dominant groundcover includes Deschampsia and Vaccinium. Wetland fringes are dominated by willows. These wetlands were grouped because they are located in the same geomorphic position and have similar vegetation communities.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 30

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	3.50	1.67
Sediment Retention & Stabilization (SR)	10.00	5.00
Phosphorus Retention (PR)	10.00	5.11
Nitrate Removal & Retention (NR)	10.00	4.33
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.93	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	5.70	7.42
Anadromous Fish Habitat (FA)	0.00	4.75
Non-anadromous Fish Habitat (FR)	3.97	6.67
Amphibian & Reptile Habitat (AM)	7.42	7.33
Waterbird Feeding Habitat (WBF)	4.75	4.00
Waterbird Nesting Habitat (WBN)	5.32	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	5.10	6.67
Pollinator Habitat (POL)	5.40	5.00
Native Plant Diversity (PD)	6.16	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	3.50	1.67
Water Quality Group (WQ)	10.00	5.11
Carbon Sequestration (CS)	1.93	
Fish Support Group (FISH)	3.97	6.67
Aquatic Support Group (AQ)	7.42	7.33
Terrestrial Support Group (TERR)	6.16	6.67
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		4.43
Wetland Stressors		2.75
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.88
Flat	5.36
Depressional	13.61
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 31**
Date(s) of assessment:	**August 2010**	Size (acres):	**89.33**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PABH, PFO4C, PSS1C, PUBH**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Depressional open, Slope**

TRS quarter section tax lot:	**1812040000200, 1812044300077, 1812044302600, 1812044303500, 1812090000240, 1812090000241, 1812090000242, 1812090000243, 1812090000244, 1812090000246, 1812090000247, 1812090000250, 1812090000251, 1812090000500, 1812090000602**
Street address or location:	**Either side of N Jetty Road; east to base of terrace (below Rhododendron Drive)**
Latitude:	**44.0233**
Longitude:	**-124.1312**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Heceta fine sand, Waldport fine sand, Dune land**
Hydrologic Source:	**Groundwater, Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**		
Salix spp.	**Willow**		

Comments:

Large wetland complex on State property; located primarily east of N Jetty Road. Wetland maintains a seasonal hydrologic connection to the Siuslaw River via culverts under Jetty Road. These wetlands were grouped because they are located in the similar geomorphic positions and are hydrologically connected.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 31

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	2.71	2.92
Sediment Retention & Stabilization (SR)	5.89	5.24
Phosphorus Retention (PR)	2.48	5.78
Nitrate Removal & Retention (NR)	6.17	4.13
Thermoregulation (T)	5.44	7.50
Carbon Sequestration (CS)	2.55	
Organic Matter Export (OE)	5.70	
Aquatic Invertebrate Habitat (INV)	5.89	7.93
Anadromous Fish Habitat (FA)	7.93	10.00
Non-anadromous Fish Habitat (FR)	6.98	6.67
Amphibian & Reptile Habitat (AM)	4.40	7.33
Waterbird Feeding Habitat (WBF)	5.74	7.33
Waterbird Nesting Habitat (WBN)	4.63	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.30	6.67
Pollinator Habitat (POL)	6.06	5.00
Native Plant Diversity (PD)	5.64	7.03

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	2.71	2.92
Water Quality Group (WQ)	6.17	7.50
Carbon Sequestration (CS)	2.55	
Fish Support Group (FISH)	7.93	10.00
Aquatic Support Group (AQ)	5.89	7.33
Terrestrial Support Group (TERR)	6.30	7.03
Public Use & Recognition (PU)		0.95
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.02
Wetland Stressors		2.80
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	Wetland 32
Date(s) of assessment:	**August 2010**	Size (acres):	**8.76**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**L2ABH, PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Lacustrine**

TRS quarter section tax lot:	**1812120000701, 1812120000702, 1812130001000, 1812130001800, 1812141000104, 1812141000113, 1812141000202**
Street address or location:	**Ackerley Lake**
Latitude:	**44.0116**
Longitude:	**-124.0849**
Locally Significant?:	**No**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Netarts fine sand, Bullards-Ferrelo loams**
Hydrologic Source:	**Surface**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore pine**	***Carex obnupta***	**Slough sedge**
Alnus rubra	**Red alder**		

Comments:

This wetland includes an aquatic and forested area along the west side of Ackerley Lake south to Munsel Lake as well as three forested areas adjoining Munsel Lake. The lacustrine portion begins at the confluence of the Clear Lake drainage channel and Ackerley Lake. Vegetation identified above has not been confirmed but is presumed to be present based upon observation of similar habitats in the Florence area.

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 32

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	2.26	2.00
Sediment Retention & Stabilization (SR)	4.46	4.88
Phosphorus Retention (PR)	5.56	5.92
Nitrate Removal & Retention (NR)	5.05	4.33
Thermoregulation (T)	3.61	6.67
Carbon Sequestration (CS)	2.18	
Organic Matter Export (OE)	6.90	
Aquatic Invertebrate Habitat (INV)	5.33	7.65
Anadromous Fish Habitat (FA)	6.64	10.00
Non-anadromous Fish Habitat (FR)	4.70	7.73
Amphibian & Reptile Habitat (AM)	5.52	7.33
Waterbird Feeding Habitat (WBF)	5.46	4.00
Waterbird Nesting Habitat (WBN)	5.26	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	7.65	6.67
Pollinator Habitat (POL)	8.73	5.00
Native Plant Diversity (PD)	6.59	7.96

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	2.26	2.00
Water Quality Group (WQ)	5.56	6.67
Carbon Sequestration (CS)	2.18	
Fish Support Group (FISH)	6.64	10.00
Aquatic Support Group (AQ)	6.90	7.33
Terrestrial Support Group (TERR)	8.73	7.96
Public Use & Recognition (PU)		2.22
Provisioning Services (PS)		2.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.77
Wetland Stressors		1.48
Wetland Sensitivity		3.37

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.00
Slope	0.00
Flat	0.00
Depressional	0.00
Lacustrine	10.00

Wetland Characterization Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 33**
Date(s) of assessment:	**August 2010**	Size (acres):	**0.61**
Data Sheet Number(s):	**None**	Cowardin Class(es):	**PFO4C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Flat, depressional**

TRS quarter section tax lot:	**1812150001600**
Street address or location:	**Wetland between Hwy 101 and Shelter Cove Subdivision**
Latitude:	**44.0071**
Longitude:	**-124.1173**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina loamy fine sand**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Pinus contorta	**Shore Pine**	***Deschampsia cespitosa***	**Tufted Hairgrass**
Spiraea douglasii	**Douglas' Spirea**	***Carex obnupta***	**Slough Sedge**
Vaccinium uliginosum	**Bog Blueberry**	***Juncus effusus***	**Soft Rush**
Salix sp.	**Willow**		

Comments:

Interdunal swale surrounded by Pinus and Gaultheria dominated upland. Wetland is dominated by tufted hairgrass and bog blueberry. Wetland fringe is dominated by shrubs (willows).

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 33

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	4.50	1.67
Sediment Retention & Stabilization (SR)	10.00	4.77
Phosphorus Retention (PR)	10.00	4.69
Nitrate Removal & Retention (NR)	10.00	3.86
Thermoregulation (T)	0.00	0.00
Carbon Sequestration (CS)	1.99	
Organic Matter Export (OE)	0.00	
Aquatic Invertebrate Habitat (INV)	6.46	7.36
Anadromous Fish Habitat (FA)	0.00	4.27
Non-anadromous Fish Habitat (FR)	1.22	6.67
Amphibian & Reptile Habitat (AM)	7.36	7.33
Waterbird Feeding Habitat (WBF)	4.27	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	6.55	6.67
Pollinator Habitat (POL)	7.09	5.00
Native Plant Diversity (PD)	5.99	6.97

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	4.50	1.67
Water Quality Group (WQ)	10.00	4.77
Carbon Sequestration (CS)	1.99	
Fish Support Group (FISH)	1.22	6.67
Aquatic Support Group (AQ)	7.36	7.33
Terrestrial Support Group (TERR)	7.09	6.97
Public Use & Recognition (PU)		10.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		6.64
Wetland Stressors		3.19
Wetland Sensitivity		10.00

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	0.50
Slope	1.50
Flat	6.15
Depressional	2.78
Lacustrine	0.00

Wetland Summary Sheet

Project Name: Florence LWI

		Wetland Code:	**Wetland 34**
Date(s) of assessment:	**August 11, 2010**	Size (acres):	**1.88**
Data Sheet Number(s):	**10**	Cowardin Class(es):	**PFO1C**
Investigator(s):	**A. Hawkins / S. Eisner**	HGM Class(es):	**Riverine**

TRS quarter section tax lot:	**1812222302000, 1812222302100, 1812222301201, 1812223333703, 1812220000701, 1812222100066**
Street address or location:	**East and west of Rhododendron Drive south of 35th**
Latitude:	**43.9952**
Longitude:	**-124.1176**
Locally Significant?:	**Yes**
Hydrologic basin:	**171002060804**
Soil -- Mapped series:	**Yaquina-Urban land complex, Dune lands**
Hydrologic Source:	**Groundwater, Surface**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Lonicera involucrata	**Bearberry Honeysuckle**	***Rubus discolor***	**Himalayan Blackberry**
Alnus rubra	**Red Alder**	***Juncus effusus***	**Soft Rush**
Salix hookeriana	**Hooker Willow**	***Holcus lanatus***	**Common Velvet Grass**
		Erechitites minima	**Burnweed**
		Equisetum arvense	**Field Horsetail**
		Epilobium watsonii	**Watson's Willow-Herb**

Comments:

Wetland at valley bottom associated with stream east of Rhododendron Drive. Northern portion is confined by residential development on both sides. West of the wetland the stream enters a culvert which outlets into the Siuslaw River. Portions of this feature have been delineated and received concurrence from DSL (WD#'s 2006-0740 & 1999-0227).

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	PUB = palustrine unconsolidated bottom
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

ORWAP SCORES SHEET (Version 2.0.2)

Florence Local Wetland Inventory — Wetland 34

SPECIFIC FUNCTIONS	Relative Effectiveness of the Function	Relative Values of the Function
Water Storage & Delay (WS)	1.64	1.67
Sediment Retention & Stabilization (SR)	5.03	6.64
Phosphorus Retention (PR)	2.60	5.76
Nitrate Removal & Retention (NR)	4.66	4.68
Thermoregulation (T)	4.94	5.00
Carbon Sequestration (CS)	3.15	
Organic Matter Export (OE)	6.06	
Aquatic Invertebrate Habitat (INV)	4.21	6.00
Anadromous Fish Habitat (FA)	0.00	4.16
Non-anadromous Fish Habitat (FR)	2.57	6.67
Amphibian & Reptile Habitat (AM)	2.88	6.67
Waterbird Feeding Habitat (WBF)	4.16	4.00
Waterbird Nesting Habitat (WBN)	0.00	6.67
Songbird, Raptor, & Mammal Habitat (SBM)	4.55	6.67
Pollinator Habitat (POL)	4.66	0.83
Native Plant Diversity (PD)	4.53	6.67

GROUPED FUNCTIONS	Group Scores (functions)	Group Scores (values)
Hydrologic Function (WS)	1.64	1.67
Water Quality Group (WQ)	5.03	6.64
Carbon Sequestration (CS)	3.15	
Fish Support Group (FISH)	2.57	6.67
Aquatic Support Group (AQ)	6.06	6.67
Terrestrial Support Group (TERR)	4.66	6.67
Public Use & Recognition (PU)		0.00
Provisioning Services (PS)		0.00

OTHER ATTRIBUTES		
Wetland Ecological Condition		7.46
Wetland Stressors		3.79
Wetland Sensitivity		5.06

HGM Class - Relative Probabilities (select max)	
Estuarine	0.00
Riverine	3.50
Slope	1.44
Flat	0.00
Depressional	0.00
Lacustrine	0.00

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/8/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **1**

Investigator(s): **CR/AH** Section, Township, Range: **Section 22, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: **Waldport fine sand** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Pinus contorta***	**50**	**X**	**FAC**
2			
3			
4			
	50	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Salix sitchensis***	**3**	**X**	**FACW**
2			
3			
4			
5			
	3	= Total Cover	
Herb Stratum (plot size: **30**)			
1 ***Carex obnupta***	**95**	**X**	**OBL**
2			
3			
4			
5			
6			
7			
8			
	95	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- _____ Prevalence Index is ≤ 3.0[1]
- _____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- _____ Wetland Non-Vascular Plants[1]
- _____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

SOIL PHS # **4611** Sampling Point: **1**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	**10YR 2/2**	**100**					**Sandy Loam**	
2-18	**2.5Y 5/3**	**95**	**10YR 4/6**	**5**	**C**	**M**	**Sand**	**organic streaking**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
X	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

Sample site is a depressional area that meets hydrophytic vegetation and wetland hydrology indicators. Prominent concentrations in the form of streaks of organic material in a sandy soil were observed. Despite not meeting any of the criteria above, the observed soils are hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

X	Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	Drainage Patterns (B10)
	Dry-Season Water Table (C2)
	Saturation Visible on Aerial Imagery (C9)
	Geomorphic Position (D2)
	Shallow Aquitard (D3)
X	Fac-Neutral Test (D5)
	Raised Ant Mounds (D6) **(LRR A)**
	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes		No **X**	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes		No **X**	Depth (inches):	

Wetland Hydrology Present?

Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/8/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **2**

Investigator(s): **CR/AH** Section, Township, Range: **Section 22, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Waldport fine sand** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Pinus contorta***	**95**	**X**	**FAC**
2			
3			
4			
	95	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: ____)			
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **100**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **1** (A)

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

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Dense overstory with no groundcover.

SOIL PHS # **4611** Sampling Point: **2**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
3-0	**Duff**	**100**						
0-18	**2.5Y 5/3**	**100**					**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

- ___ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Fac-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present?

Yes ___ **No X**

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/15/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **3**

Investigator(s): **AH/SE** Section, Township, Range: **Section 2, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: **Yaquina loamy fine sand** NWI Classification: **PEMC**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Spiraea douglasii***	**30**	**X**	**FACW**
2 ***Myrica californica***	**70**	**X**	**FACW**
3			
4			
5			
	100	= Total Cover	
Herb Stratum (plot size: ____)			
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Additional wetland vegetation: Carex obnupta, Pinus contorta, some Vaccinium ovatum.

SOIL

PHS # 4611 Sampling Point: 3

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
3-0	Duff							
0-3	10YR 4/2	100					sand	
3-18	10YR 4/2	30	10YR 4/6	20	C	M	sand	soft masses
			10YR 4/4	50	C	M		soft masses

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: None

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)	X	Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)	X	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No X	Depth (inches):	
Water Table Present?	Yes	X	No	Depth (inches):	7
Saturation Present? (includes capillary fringe)	Yes	X	No	Depth (inches):	0

Wetland Hydrology Present? Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/15/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **4**

Investigator(s): **AH/SE** Section, Township, Range: **Section 14, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Waldport fine sand** NWI Classification: **L2ABH**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Rhamnus purshiana***	**15**	**X**	**FAC**
2 ***Thuja plicata***	**20**	**X**	**FAC**
3			
4			
	35	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Rubus spectabilis***	**2**		**FAC**
2 ***Spiraea douglasii***	**15**	**X**	**FACW**
3 ***Malus fusca***	**15**	**X**	**FACW**
4 ***Gaultheria shallon***	**3**		**FACU**
5			
	35	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Carex obnupta***	**93**	**X**	**OBL**
2 ***Hedera helix***	**2**		**UPL**
3 ***Oenanthe sarmentosa***	**3**		**OBL**
4			
5			
6			
7			
8			
	98	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **5** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Additional wetland vegetation: Salix sp., Lysichiton americanum, Juncus tenuis, Scirpus sp., Nuphar luteum.

SOIL PHS # **4611** Sampling Point: **4**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	**7.5YR 2.5/1**	**100**					**Sand**	**fine, silty. High oreganic content.**
8-12	**2.5Y 4/1**	**100**					**Sand**	**fine.**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (2 or more required)	
	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)		Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)		Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**3**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**0**

Wetland Hydrology Present?

Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/15/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **5**

Investigator(s): **AH/SE** Section, Township, Range: **Section 24, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: **Yaquina loamy fine sand** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Alnus rubra***	**60**	**X**	**FAC**
2 ***Tsuga heterophylla***	**5**		**FACU**
3			
4			
	65	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Rubus spectabilis***	**20**	**X**	**FAC**
2			
3			
4			
5			
	20	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Equisetum arvense***	**5**	**X**	**FAC**
2 ***Lysichiton americanum***	**10**	**X**	**OBL**
3 ***Athyrium filix-femina***	**5**	**X**	**FAC**
4 ***Polystichum munitum***	**3**		**FACU**
5			
6			
7			
8			
	23	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **20**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **5** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Other wetland vegetation: Salix sp., Ribes sp., Tsuga heterophylla, Thuja plicata, Oenanthe sarmentosa, Polystichum munitum.

SOIL PHS # **4611** Sampling Point: **5**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	**7.5YR 2.5/1**	**100**					**Sandy Loam**	**fine, with high organic content.**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (2 or more required)	
	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)		Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)		Fac-Neutral Test (D5)
X	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No X	Depth (inches):	
Water Table Present?	Yes	X	No	Depth (inches):	12
Saturation Present? (includes capillary fringe)	Yes	X	No	Depth (inches):	0

Wetland Hydrology Present?

Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: Florence LWI | City/County: Florence/Lane | Sampling Date: 7/16/2010

Applicant/Owner: City of Florence | State: OR | Sampling Point: 6

Investigator(s): AH/SE | Section, Township, Range: Section 3, T 18 South, R 12 West

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

Subregion (LRR): LRR A | Lat: | Long: | Datum:

Soil Map Unit Name: Dune land | NWI Classification: PSSC

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Pinus contorta*	30	X	FAC
2			
3			
4			
	30	= Total Cover	
Sapling/Shrub Stratum (plot size: 5)			
1 *Salix sp.*	15	X	(FAC to FACW)
2			
3			
4			
5			
	15	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Scirpus microcarpus*	40	X	OBL
2			
3			
4			
5			
6			
7			
8			
	40	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 60

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- X Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

Remarks:

SOIL PHS # **4611** Sampling Point: **6**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-0	**Duff**							
0-12	**10YR 4/2**	**100**					**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)	**X**	Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)	**X**	Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)	**X**	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**3**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**0**

Wetland Hydrology Present?

Yes x No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/16/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **7**

Investigator(s): **AH/SE** Section, Township, Range: **Section 4, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Yaquina loamy fine sand** NWI Classification: **None**

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

Are vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ___ Soil ___ or Hydrology ___ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Salix sp.***	**70**	**X**	**(FAC to FACW)**
2			
3			
4			
	70	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Spiraea douglasii***	**3**		**FACW**
2 ***Vaccinium ovatum***	**5**		**UPL**
3 ***Ledum glandulosum***	**30**	**X**	**FACW**
4 ***Lonicera involucrata***	**25**	**X**	**FAC**
5 ***Salix sp.***	**20**	**X**	**(FAC to FACW)**
	83	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Carex obnupta***	**30**	**X**	**OBL**
2			
3			
4			
5			
6			
7			
8			
	30	= Total Cover	
Woody Vine Stratum (plot size: ___)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **40**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **5** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ___ Prevalence Index is ≤ 3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

SOIL PHS # **4611** Sampling Point: **7**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	**7.5YR 3/3**	**100**						**muck; nearly all organic material**
5-8	**5Y 2.5/1**	**100**					**Sand**	**mucky**
8-12	**2.5Y 3/1**	**100**					**Sand**	**fine sand, no organics**

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

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

	Histosol (A1)		Sandy Redox (S5)		2 cm Muck (A10)
X	Histic Epipedon (A2)		Stripped Matrix (S6)		Red Parent Material (TF2)
	Black Histic (A3)		Loamy Mucky Mineral (F1) **(except MLRA 1)**		Other (explain in Remarks)
X	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)		
	Depleted Below Dark Surface (A11)		Depleted Matrix (F3)		
	Thick Dark Surface (A12)		Redox Dark Surface (F6)		
	Sandy Mucky Mineral (S1)		Depleted Dark Surface (F7)		
	Sandy Gleyed Matrix (S4)		Redox Depressions (F8)		

Indicators for Problematic Hydric Soils[3]:

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (2 or more required)	
	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)	**X**	Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)		Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)	**X**	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**1**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**0**

Wetland Hydrology Present?

Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/16/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **8**

Investigator(s): **AH/SE** Section, Township, Range: **Section 4, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Yaquina loamy fine sand** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Myrica californica***	**40**	**X**	**FACW**
2 ***Picea sitchensis***	**20**	**X**	**FAC**
3 ***Picea sp.***	**5**		**(FAC)**
4			
	65	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Spiraea douglasii***	**15**	**X**	**FACW**
2 ***Salix sp.***	**20**	**X**	**(FAC to FACW)**
3 ***Myrica californica***	**20**	**X**	**FACW**
4			
5			
	55	= Total Cover	
Herb Stratum (plot size:)			
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **70**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **5** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

Prevalence Index is ≤ 3.0[1]

Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

Wetland Non-Vascular Plants[1]

Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

SOIL PHS # **4611** Sampling Point: **8**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8-0	**Duff**							
0-4	**10YR 2/2**	**100**					**Sandy Loam**	**high organic content**
4-10	**2.5Y 3/2**	**95**	**7.5YR 2.5/3**	**5**	**C**	**M**	**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)		Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)	**X**	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**12**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**6**

Wetland Hydrology Present? Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **7/16/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **9**

Investigator(s): **AH/SE** Section, Township, Range: **Section 26 T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Dune land** NWI Classification: **PUSC**

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

Are vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ___ Soil ___ or Hydrology ___ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size:)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size:)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Unidentified bunchgrass***	**13**	**X**	**unknown**
2 ***Salix sp.***	**5**	**X**	**(FACW)**
3 ***(presumably S. hookeriana)***			
4			
5			
6			
7			
8			
	18	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **90 to 95**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤ 3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ___ Wetland Non-Vascular Plants[1]
- **X** Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Though Pinus contorta is common along the edges of this wetland, the interior is sparsely vegetated. The apparent combined result of seasonal ponding and sandy soils. Other species in the vicinity: S. hookeriana shrubs, Spiraea douglasii, and several species of rushes.

SOIL PHS # **4611** Sampling Point: **9**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	**10YR 4/3**	**96**	**10YR 4/6**	**4**	**C**	**M**	**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- **X** Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

Sample site fails to meet any specific hydric soil indicator. However, evidence of a dry season water table indicates that extended periods of shallow saturation earlier in the growing season are likely. Two weeks of saturation during the growing season is sufficient to develop anaerobic conditions and therefore meet the definition of a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

- Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- **X** Saturation Visible on Aerial Imagery (C9)
- **X** Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Fac-Neutral Test (D5)
- Raised Ant Mounds (D6) **(LRR A)**
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**12**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**8**

Wetland Hydrology Present? Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/11/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **10**

Investigator(s): **AH/SE** Section, Township, Range: **Section 22, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Dune land** NWI Classification: **PFOC**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Alnus rubra***	**10**	**X**	**FAC**
2 ***Salix sp.***	**40**	**X**	**(FAC to FACW)**
3			
4			
	50	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Rubus spectabilis***	**10**	**X**	**FAC**
2 ***Rubus discolor***	**3**	**X**	**FACU**
3			
4			
5			
	13	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Equisetum arvense***	**35**	**X**	**FAC**
2 ***Carex unilateralis***	**15**	**X**	**FACW**
3 ***Carex obnupta***	**10**		**OBL**
4			
5			
6			
7			
8			
	60	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **30**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **5** (A)

Total Number of Dominant Species Across All Strata: **6** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **83%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Additional wetland vegetation: 2 Salix sp., Gaultheria shallon, Polystichum munitum, Cytisus scoparius, Rubus ursinus, Lonicera involucrata, Pinus contorta, Lotus corniculatus, Myrica californica.

SOIL PHS # **4611** Sampling Point: **10**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	**5YR 2.5/2**	**100**					**Sandy Loam**	
3-12	**5Y 5/3**	**98**	**10YR 4/6**	**2**	**C**	**M**	**Sand**	**fine**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
X	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

Sample site fails to meet any specific hydric soil indicator. However, saturation into mid-summer indicates that extended periods of saturation can be presumed. Two weeks of saturation during the growing season is sufficient to develop anaerobic conditions and therefore meet the definition of a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

	Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
	Drainage Patterns (B10)
	Dry-Season Water Table (C2)
	Saturation Visible on Aerial Imagery (C9)
	Geomorphic Position (D2)
	Shallow Aquitard (D3)
X	Fac-Neutral Test (D5)
	Raised Ant Mounds (D6) **(LRR A)**
	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**12**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**5**

Wetland Hydrology Present? Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/11/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **11**

Investigator(s): **AH/SE** Section, Township, Range: **Section 4, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: **Yaquina loamy fine sand** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Pinus contorta***	**10**	**X**	**FAC**
2			
3			
4			
	10	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Salix sp.***	**15**		**(FAC to FACW)**
2 ***Ledum glandulosum***	**20**	**X**	**FACW**
3 ***Spiraea douglasii***	**35**	**X**	**FACW**
4 ***Vaccinium ovatum***	**15**		**UPL**
5 ***Crataegus douglasii***	**5**		**FAC**
	90	= Total Cover	
Herb Stratum (plot size: _____)			
1 ***Festuca sp.***	**10**		**(FAC)**
2 ***Juncus balticus***	**30**	**X**	**FACW**
3 ***Carex obnupta***	**25**	**X**	**OBL**
4			
5			
6			
7			
8			
	65	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **0**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **5** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

_____ Wetland Non-Vascular Plants[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

SOIL PHS # **4611** Sampling Point: **11**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	**10YR 2/1**	**100**					**Sandy Loam**	
3-19	**2.5Y 4/3**	**96**	**10YR 3/4**	**4**	**C**	**M**	**Sand**	**fine to coarse mottles**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
X	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

Sample site fails to meet any specific hydric soil indicator. However, evidence of a dry season water table indicates that extended periods of shallow saturation earlier in the growing season are likely. Two weeks of saturation during the growing season is sufficient to develop anaerobic conditions and therefore meet the definition of a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (2 or more required)	
	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**	X	Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
	High Water Table (A2)				
	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)	X	Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)		Geomorphic Position (D2)
X	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)	X	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No X	Depth (inches):	
Water Table Present?	Yes	X	No	Depth (inches):	19
Saturation Present? (includes capillary fringe)	Yes	X	No	Depth (inches):	16

Wetland Hydrology Present? Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/11/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **12**

Investigator(s): **AH/SE** Section, Township, Range: **Section 24, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Waldport fine sand** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Thuja plicata***	**45**	**X**	**FAC**
2 ***Tsuga heterophylla***	**35**	**X**	**FACU**
3 ***Pinus contorta***	**2**		**FAC**
4 ***Myrica californica***	**20**		**FACW**
	102	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Myrica californica***	**15**	**X**	**FACW**
2 ***Gaultheria shallon***	**40**	**X**	**FACU**
3			
4			
5			
	55	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Lysichiton americanum***	**30**	**X**	**OBL**
2 ***Gaultheria shallon***	**15**	**X**	**FACU**
3 ***Blechnum spicant***	**20**	**X**	**FAC**
4			
5			
6			
7			
8			
	65	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **10**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **7** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **57%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Bryophytes 80%.

SOIL PHS # **4611** Sampling Point: **12**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	**10YR 2/1**	**100**					**Loam**	**high organic**
3-8	**7.5YR 2.5/2**	**100**						**muck**
8-15	**10YR 4/1**	**100**					**Sand**	**fine**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
	Surface Water (A1)	Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**	Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)		
X	Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
	Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
	Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)	Oxidized Rhizospheres along Living Roots (C3)	Geomorphic Position (D2)
	Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
	Iron Deposits (B5)	Recent Iron Reduction in Plowed Soils (C6)	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) **(LRR A)**	Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**9**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**3**

Wetland Hydrology Present?

Yes X No

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

None

Remarks:

PHS # 4680

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

Project/Site: **Brandt Property** City/County: **Florence/Lane** Sampling Date: **7/6/2010**

Applicant/Owner: **Craig & Kathleen Brandt** State: **OR** Sampling Point: **13**

Investigator(s): **AH/CR** Section, Township, Range: **Section 14, T 18 South, R 12 West**

Landform (hillslope, terrace, etc.:) **toe of slope** Local relief (concave, convex, none): **none** Slope (%): **< 20**

Subregion (LRR): **LRR A** Lat: **44.0098** Long: **124.0865** Datum: **DD.DD**

Soil Map Unit Name: **Netarts fine sand** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Pinus contorta***	**5**	**X**	**FAC**
2			
3			
4			
	5	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Gaultheria shallon***	**50**	**X**	**FACU**
2 ***Rhamnus purshiana***	**20**		**FAC**
3 ***Ledum glandulosum***	**30**	**X**	**FACW**
4 ***Spiraea douglasii***	**3**		**FACW**
5 ***Vaccinium ovatum***	**30**	**X**	**UPL**
	133	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Polystichum munitum***	**15**	**X**	**FACU**
2			
3			
4			
5			
6			
7			
8			
	15	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **40%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species	____	x 1 =	**0**
FACW species	____	x 2 =	**0**
FAC Species	____	x 3 =	**0**
FACU Species	____	x 4 =	**0**
UPL Species	____	x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

SOIL PHS # **4680** Sampling Point: **13**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	**10YR 2/1**	**100**					**loam**	**loamy duff**
10-18	**10YR 2/2**	**100**					**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

_____ 2 cm Muck (A10)
_____ Red Parent Material (TF2)
_____ Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **none**
Depth (inches): _____

Hydric Soil Present? Yes _____ **No X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

_____ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
_____ Drainage Patterns (B10)
_____ Dry-Season Water Table (C2)
_____ Saturation Visible on Aerial Imagery (C9)
_____ Geomorphic Position (D2)
_____ Shallow Aquitard (D3)
_____ Fac-Neutral Test (D5)
_____ Raised Ant Mounds (D6) **(LRR A)**
_____ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
Water Table Present? Yes _____ No **X** Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): _____

Wetland Hydrology Present?
Yes _____ **No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
none

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/12/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **14**

Investigator(s): **AH/SE** Section, Township, Range: **Section 3, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: **Yaquina loamy fine sand** NWI Classification: **PUBH**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Spiraea douglasii***	**100**	**X**	**FACW**
2 ***Salix hookeriana***	**5**		**FACW**
3			
4			
5			
	105	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Carex obnupta***	**20**	**X**	**OBL**
2			
3			
4			
5			
6			
7			
8			
	20	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- _____ Prevalence Index is ≤ 3.0[1]
- _____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- _____ Wetland Non-Vascular Plants[1]
- _____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Additional wetland vegetation: few small Pinus contorta.

SOIL PHS # **4611** Sampling Point: **14**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	**10YR 2/1**	**100**						**muck**
3-13	**7.5YR 3/2**	**100**					**Sand**	**fine**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

	Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
	Drainage Patterns (B10)
	Dry-Season Water Table (C2)
	Saturation Visible on Aerial Imagery (C9)
X	Geomorphic Position (D2)
	Shallow Aquitard (D3)
X	Fac-Neutral Test (D5)
	Raised Ant Mounds (D6) **(LRR A)**
	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No X	Depth (inches):	
Water Table Present?	Yes	X	No	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes	X	No	Depth (inches):	3

Wetland Hydrology Present? Yes X No

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

None

Remarks:

On prior visit on 6/17/10 there was three feet of water at this location. Property owner indicated that there has been significant ponding during the last two winters; two winters prior to that, little seasonal ponding.

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/12/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **15**

Investigator(s): **AH/SE** Section, Township, Range: **Section 11, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Yaquina loamy fine sand** NWI Classification: **PFOC**

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

Are vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ___ Soil ___ or Hydrology ___ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Pinus contorta***	**10**	**X**	**FAC**
2			
3			
4			
	10	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Ledum glandulosum***	**10**		**FACW**
2 ***Vaccinium uliginosum***	**60**	**X**	**FACW**
3 ***Spiraea douglasii***	**15**		**FACW**
4			
5			
	85	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Unidentified grass***	**20**	**X**	**(FAC)**
2 ***Juncus tenuis***	**10**		**FACW**
3 ***Carex obnupta***	**10**		**OBL**
4			
5			
6			
7			
8			
	40	= Total Cover	
Woody Vine Stratum (plot size: ___)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **30***

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ___ Prevalence Index is ≤ 3.0[1]
- ___ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

***Groundcover included up to 30% cover by an unidentified Bryophyte.**
Additional wetland vegetation: Myrica californica shrub.

SOIL PHS # **4611** Sampling Point: **15**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	**10YR 4/3**	**80**	**10YR 4/6**	**20**	**C**	**CS**	**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
X	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
X	Sediment Deposits (B2)	**X**	Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)	**X**	Geomorphic Position (D2)
X	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)	**X**	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**7**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**1**

Wetland Hydrology Present?

Yes X No

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/12/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **16**

Investigator(s): **AH/SE** Section, Township, Range: **Section 14, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: Long: Datum:

Soil Map Unit Name: **Dune land** NWI Classification: **None**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Pinus contorta***	**20**	**X**	**FAC**
2			
3			
4			
	20	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Carex obnupta***	**10**		**OBL**
2 ***Juncus falcatus***	**35**	**X**	**FACW**
3 ***Juncus nevadensis***	**35**	**X**	**FACW**
4			
5			
6			
7			
8			
	80	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **20**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- **X** Dominance Test is >50%
- ____ Prevalence Index is ≤ 3.0[1]
- ____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

SOIL

PHS # 4611 Sampling Point: 16

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	**10YR 4/3**	**70**	**10YR 4/6**	**30**	**C**	**CS**	**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- X Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Sample site is a depressional area that meets hydrophytic vegetation and wetland hydrology indicators. Prominent concentrations in the form of coated sand grains were observed. Despite not meeting any of the criteria above, the observed soils are hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

- ___ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Fac-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

None

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/12/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **17**

Investigator(s): **AH/SE** Section, Township, Range: **Section 14, T 18 South, R 12 West**

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

Subregion (LRR): **LRR A** Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: **Heceta fine sand** NWI Classification: **PEMC**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: **5**)			
1 ***Vaccinium uliginosum***	**80**	**X**	**FACW**
2 ***Spiraea douglasii***	**5**		**FACW**
3			
4			
5			
	85	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Juncus falcatus***	**10**	**X**	**FACW**
2			
3			
4			
5			
6			
7			
8			
	10	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

_____ Wetland Non-Vascular Plants[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Additional wetland vegetation in the vicinity: Pinus contorta.

SOIL PHS # **4611** Sampling Point: **17**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	**10YR 4/3**	**100**					**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- **X** Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

The sample site has strong evidence of extended, though seasonal, periods of ponding with water depths likely approaching 2 feet. Though dry at the time of assessment, the ground surface has an algal mat layer in many areas. An air photo from June 2006 indicates ponding extending into the early summer. Photos from other years show no evidence of ponding in August. Observed vegetation confirms the presence of at least seasonally saturated soils.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

- Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- Drainage Patterns (B10)
- **X** Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- **X** Geomorphic Position (D2)
- Shallow Aquitard (D3)
- **X** Fac-Neutral Test (D5)
- Raised Ant Mounds (D6) **(LRR A)**
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**20**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**18**

Wetland Hydrology Present? Yes X No

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

None

Remarks:

PHS # 4680

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

Project/Site: **Brandt Property** City/County: **Florence/Lane** Sampling Date: **7/6/2010**

Applicant/Owner: **Craig & Kathleen Brandt** State: **OR** Sampling Point: **18**

Investigator(s): **AH/CR** Section, Township, Range: **Section 14, T 18 South, R 12 West**

Landform (hillslope, terrace, etc.:) **wetland fringe** Local relief (concave, convex, none): **none** Slope (%): **0**

Subregion (LRR): **LRR A** Lat: **44.0098** Long: **124.0865** Datum: **DD.DD**

Soil Map Unit Name: **Netarts fine sand** NWI Classification: **L2ABH**

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Juncus falcatus***	**70**	**X**	**FACW**
2 ***Juncus effusus***	**10**		**FACW**
3 ***Agrostis tenuis***	**20**	**X**	**FAC**
4			
5			
6			
7			
8			
	100	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

SOIL PHS # **4680** Sampling Point: **18**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	**10YR 3/2**	**50**	**10YR 3/4**	**10**	**C**	**M**	**Sand**	**mixed soil profile**
0-18	**10YR 4/2**	**40**					**Sand**	**mixed soil profile**

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

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

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

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **none**

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
X	High Water Table (A2)				
X	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)	**X**	Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)	**X**	Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes	**X**	No	Depth (inches):	**10**
Saturation Present? (includes capillary fringe)	Yes	**X**	No	Depth (inches):	**10**

Wetland Hydrology Present?

Yes X No

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

none

Remarks:

PHS # 4611

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

Project/Site: **Florence LWI** City/County: **Florence/Lane** Sampling Date: **8/12/2010**

Applicant/Owner: **City of Florence** State: **OR** Sampling Point: **13**

Investigator(s): **AH/SE** Section, Township, Range:

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

Subregion (LRR): Lat: Long: Datum:

Soil Map Unit Name: NWI Classification:

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

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N)

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size:)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size:)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 ***Festuca like***	30	X	#N/A
2 ***Salicornia virginica***	10		OBL
3 ***Agrostis like***	45	X	#N/A
4 ***Juncus tenuis like***	10		#N/A
5 ***fleshy-not pickleweed***	30	X	#N/A
6 ***yellow flower***	5		#N/A
7			
8			
	130	= Total Cover	
Woody Vine Stratum (plot size:)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

- X Dominance Test is >50%
- Prevalence Index is ≤ 3.0[1]
- Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- Wetland Non-Vascular Plants[1]
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

Remarks:

SOIL PHS # **4611** Sampling Point: **13**

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

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	**10YR 4/3**	**80**	**7.5YR 4/6**	**20**			**Sand**	**ORs in upper 3 inches**
3-16	**10YR 4/3**	**88**	**10YR 4/6**	**12**	**C**	**CS**	**Sand**	

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

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

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (explain in Remarks)

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

Restrictive Layer (if present):

Type: **None**

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

- ___ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- **X** Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Fac-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	___	No **X**	Depth (inches):	___
Water Table Present?	Yes	**X**	No ___	Depth (inches):	**10**
Saturation Present? (includes capillary fringe)	Yes	**X**	No ___	Depth (inches):	**4**

Wetland Hydrology Present? Yes X No ___

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

None

Remarks:

Office Data Form (OF)	Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = NO**																																
D1	*Mitigation Investment*	The AA is all or part of a mitigation site used explicitly to offset impacts elsewhere (0= no, 1= yes)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
		(no information)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D2	*Conservation Investment*	The AA is part of or contiguous to a wetland on which public or private organizational funds were spent to preserve, create, restore, or enhance habitat mainly as part of a **voluntary effort** not used explicitly to offset impacts elsewhere (0= no, 1= yes)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(no information)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D3	Historically Lacking Trees	This AA (a) is not along (or in the biennial floodplain of) a large stream or river where riparian woodlands would be typical and (b) had a Presettlement vegetation class not dominated by trees as indicated by the Wetlands Explorer web site: www.oregonexplorer.info/wetlands/ORWAP . Enter 1 if both are true, 0= if not.	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1
D4	Enclosed by Roads	Draw a circle of **radius of 2 miles** centered on the AA. Within that circle, do paved roads completely encircle the AA? (0= no, 1= yes)	1	0	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	1	0	0	1	1
D5	Distance to Nearest Busy Road	The distance from the **center** of the AA to the nearest road with an average daytime traffic rate of at least 1 vehicle/ minute is:																																		
		>1 mile	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		0.5- 1 mile	0	0	1	1	1	1	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	1	1	1	0	0	0
		1000-2600 ft	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0
		500-1000 ft	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		100-500 ft	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
		<100 ft	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
D6	Forest Landscape Extent	Draw a circle of radius of **2 miles** centered on the AA. Including the AA itself, the cumulative amount of forest (regardless of patch sizes) is:																																		
		<5% of the circle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5 to 20%	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		20 to 50%	1	1	0	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0
		50 to 80%	0	0	1	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0
		>80%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D7	Forest Tract Proximity	The minimum distance from the AA **edge** to the closest forested tract or corridor **larger than 100 acres** is:																																		
		<100 ft, or 100-300 ft and not separated from the AA by stretches of open water, bare ground, lawn, or impervious surface that are wider than 150 ft.	0	0	0	1	1	0	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1	0
		100-300 ft and separated from the AA by stretches of open water, bare ground, lawn, or impervious surface that are wider than 150 ft.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		300-1000 ft	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		>1000 ft	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	1	0	0	1
D8	Size of Nearby Forest	The largest patch or corridor **within 0.5 mile** of the AA **edge** that is forested (**and not separated from the AA** by roads, fields, etc. that create a gap wider than 150 ft), occupies:																																		
		<1 acre of forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-10 acres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		10-100 acres	1	1	0	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	1	0	0	1
		100-1000 acres	0	0	1	0	0	0	0	0	1	1	0	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	0	0	1	0	0	0	1	0
		>1000 acres	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
D9	Natural Land Cover Extent	Within a **2-mile** radius measured from the **center** of the AA, the percent of the **land** that has *natural land cover* (**see definition on right**) is:																																		
		<5% of the land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5 to 20% of the land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		20 to 60% of the land	0	1	1	1	0	1	0	1	1	1	1	1	1	0	1	0	0	1	1	0	1	0	0	0	1	1	0	1	1	1	1	0	1	1
		60 to 90% of the land	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	1	0	0	1	0	1	1	1	0	0	1	0	0	0	0	1	0	0
		>90% of the land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D10	Type of Land Cover Alteration	Within a **2-mile** radius measured from the **center** of the AA, the area that is not "natural land cover" or water is mostly:																																		
		impervious surface, e.g., paved road, parking lot, building, exposed rock	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	0	0	0	0
		bare pervious surface, e.g., dirt or gravel road, plowed fields, dunes, recent clearcut or landslide	0	0	1	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	0	0	1	1	1	1
		cultivated row crops, orchards, vineyards, tree plantations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		artificially landscaped areas or lawn	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		grassland grazed or mowed to a height usually shorter than 4 inches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(none of above; land cover is >90% natural land cover)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D11	Proximity to Natural Land Cover	The minimum distance from the AA **edge** to the edge of the closest tract or corridor of **natural** (not necessarily native) land cover **larger than 100 acres**, is:																																		
		<100 ft, or the AA contains >100 acres of vegetation, or >100 acres of natural land cover is connected to the AA and is not separated from it by stretches of open water, bare ground, lawn, or impervious surface that are wider than 150 ft.	0	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	0	0	0	0	1	1	1	1	0
		<100 ft, but separated from the wetland by stretches of open water, bare ground, lawn, or impervious surface that are wider than 150 ft.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		100-300 ft; and not separated from the wetland by stretches of open water, bare ground, lawn, or impervious surface that are wider than 150 ft.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		100-300 ft, but separated from the wetland by stretches of open water, bare ground, lawn, or impervious surface that are wider than 150 ft.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NONE of the above	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	1

Office Data Form (OF)		Wetland Group	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
D12	Size of Largest Nearby Tract or Corridor of Natural Land Cover	The largest patch or corridor that is **natural land cover** and is **within 0.5 mile** of the AA edge, and **not separated from the AA by roads** etc. that create gaps wider than 150 ft, occupies:																																		
		<1 acre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-10 acres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
		10-100 acres	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0
		100-1000 acres	0	0	0	1	0	0	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	0	0	1	0	1	0	0
		>1000 acres	0	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
D13	Local Wetland Uniqueness	Within **0.5 mile** of the center of the AA, **the AA and vegetation of the same form that is contiguous to the AA** together provide (select all that apply):																																		
		the largest patch of currently ungrazed, unmowed, and unshaded herbaceous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		the largest patch of unshaded shrubland (excluding plantations)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		the largest patch of deciduous or evergreen trees (excluding plantations)	0	1	0	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
		NONE of above	1	0	1	0	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
D14	Herbaceous Open Land in Landscape	Draw a circle of radius of **2 miles** centered on the AA. The amount of **herbaceous openland** is:																																		
		<5% of the **land**	0	1	1	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	0	0	0
		5 to 20%	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1
		20 to 50%	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50 to 80%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>80%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D15	Proximity to Open Land	The distance from the AA **edge** to the closest patch of herbaceous openland **larger than 1 acre** is:																																		
		<100 ft, or the AA contains >1 acre of such cover, or is contiguous to >1 acre of such cover	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		100 to 300 ft	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		300 to 1000 ft	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
		>1000 ft	0	1	1	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1
D16	Ponded Water in Landscape	Draw a circle of radius of **2 miles** centered on the AA. **Including** water ponded in the AA itself or in a fringing water body, the amount of non-tidal water that is ponded during most of the year is:																																		
		<5% of the circle, located in 5 or fewer ponds or lakes	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<5% of the circle, located in >5 ponds or lakes	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
		5 to 30%, located in 10 or fewer ponds or lakes	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
		5 to 30%, located in >10 ponds or lakes	0	1	0	1	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	0	0
		>30%, located in 15 or fewer ponds or lakes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>30%, located in >15 ponds or lakes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
D17	Ponded Water Proximity	The minimum distance from the AA **edge** to the closest non-tidal wetland, pond, or lake that is **larger than 1 acre,** is ponded most of the year, and is **not** part of the same associated wetland, pond, or lake, is:																																		
		<300 ft, and connected with a natural land corridor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0
		<300 ft, but no uninterrupted natural land corridor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		300-1000 ft, and connected with a natural land corridor	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
		300-1000 ft, but no uninterrupted natural land corridor	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		>1000 ft, and connected with a natural land corridor	0	1	0	1	0	1	0	0	0	0	1	0	0	1	0	1	1	1	0	1	0	0	0	1	1	0	0	1	1	0	0	0	0	0
		>1000 ft, but no uninterrupted natural land corridor	0	0	0	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1
D18	Large Ponded Water Proximity	The distance from the AA **edge** to the closest (but separate) non-tidal body of water that is ponded during most of the year and is **larger than 20 acres** (about 1000 ft on a side) is:																																		
		<1 mile	0	0	1	0	1	1	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0
		1-5 miles	1	0	0	1	0	0	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1
		>5 miles	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D19	Tidal Proximity	The distance from the AA edge to the closest tidal body of water is:																																		
		<1 mile	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1	1
		1-5 miles	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0	1	0	0
		>5 miles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D20	*Upslope Soil Erodibility Risk*	Using the Web Soil Survey procedure described in the ORWAP manual, the rating of the soil map unit which occupies the largest percentage of the zone 200 ft uphill from the AA is:																																		
		very severe	1	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	1
		severe	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		moderate	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0
		slight	0	1	0	0	0	1	1	0	1	1	1	1	0	1	0	1	0	1	1	1	1	1	0	0	1	0	0	1	1	0	0	1	1	0
		(could not determine)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D21	Extent of Dominant Vegetation Class in Wetland	Using the Web Soil Survey AOI tool to measure it, what is the **area** of the largest patch of emergent, shrub, or forest vegetation **within the entire wetland** of which the AA is a part? Use just the dominant class. See instructions in last column.																																		
		<0.1 acre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0.1 - 1 acre	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
		1 to 10 acres	0	1	0	0	0	0	1	1	0	1	1	0	0	0	1	1	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	1	0	0
		10 to 100 acres	0	0	1	1	1	1	0	0	0	0	0	1	1	1	0	0	1	0	0	0	1	0	0	1	1	0	1	1	0	1	1	0	0	0
		100 to 1000 acres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		>1000 acres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D22	*Wetland Size Uniqueness in Watershed*	From the Wetlands Explorer web site (see Manual), note the 12-digit code number for this wetland's HUC6 (Hydrologic Unit Code, i.e., watershed). Then turn to the HUC4, HUC5, and HUC6 worksheets in the ORWAP_SuppInfo file. Compare the extent of the wetland's dominant vegetation form (from above) with that of the largest wetlands of the same class in the same HUC4 (first 8 digits), the same HUC5 (first 10 digits), and the same HUC6 (12 digits). Enter "1" for all that apply below:																																		
		the vegetated part of this wetland is as large or larger than any of its class mapped in its HUC**4** watershed	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		the vegetated part of this wetland is as large or larger than any of its class mapped in its HUC**5** watershed	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		the vegetated part of this wetland is as large or larger than any of its class mapped in its HUC**6** watershed	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		none of above	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1
		data are inadequate (NWI mapping not >90% completed in HUC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Office Data Form (OF)		Wetland Group	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
D23	*Wetland Number & Diversity Uniqueness*	Turn to the **HUCbest** worksheet in the **ORWAP_SuppInfo** file. Using the HUC code noted from the web site, is this AA located in one of the HUCs that are listed as having a large diversity of wetland types relative to area of wetlands (column 3), or a large number (column 4) or area (column 5) of wetlands relative to area of the HUC? Enter "1" for **all** that apply below:																																		
		yes, for the HUC4 watershed	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		yes, for the HUC5 watershed	0	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		yes, for the HUC6 watershed	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		none of above	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		data are inadequate (NWI mapping not completed in HUC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To answer most of the following questions, you must obtain specific information from web sites or agencies as indicated in the Manual or in the last column (E). In a few cases you may need to also examine aerial imagery. In the Data column (D), change the 0 (false) to a 1 (true) for the best choice, or for multiple choices where allowed and so indicated.																																				
D24	Historical Hydrologic Connectivity	Compared to extent of wetland that may have been **originally present** at this location (just prior to settlement in 1851), the current wetland is:	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**
		same size and boundaries, approximately. For example, wetland boundary may be nearly identical to hydric soil boundary	0	0	1	0	1	0	0	1	1	1	0	1	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	1	1	1
		smaller (50-99% of the original size) and/or **severed** (by roads, dikes, drained soils, etc) from **a few** historically connected wetlands that may no longer exist. Soil map may show hydric soil extending somewhat beyond current wetland boundary.	1	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	1	1	0	0	0
		much smaller (<50% of the original size) and/or **extensively severed** (by roads, dikes, drained soils) from **many** historically connected wetlands that may no longer exist. Soil map may show hydric soil extending far beyond current wetland boundary.	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		larger (due to damming of stream or runoff, excavation, removal of obstructions, irrigation, etc. **that floods soils not mapped as hydric**) or has been connected to wetlands from which it existed in isolation just prior to settlement.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		no wetland is known to have been present at this location originally (no hydric soil is mapped and presettlement vegetation was not wetland; the entire wetland may have resulted from impoundment, excavation, or regrading of upland soils)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D25	*Special Conservation Designations of the Wetland or Local Area*	Go to the Oregon Wetlands Explorer web site or other sources noted below and use those to help determine each of the following:																																		
		a) the AA is within or is **connected to** (at least seasonally) a stream or other water body **within 0.5 mile** that has been designated as **Essential Indigenous Anadromous Salmonid Habitat (ESH)**	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0
		b) the AA is within or contiguous to a **Special Protected Area** managed by a conservation group or designated as specially protected for conservation by a state or federal resource agency,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		c) the AA is within or contiguous to a **Wetland Priority Area** as determined partly by ODFW	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
		d) the AA is within an IBA (Important Bird Area, as officially designated) and listed in the **IBA** worksheet in the **ORWAP_SuppInfo** file	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NONE of above	1	1	1	0	0	0	0	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	0	0	1
D26	*Non-anadromous Fish Species of Conservation Concern*	According to the Wetlands Explorer web site, the score for occurrences of rare non-anadromous fish species in the vicinity of this AA is:																																		
		high (≥ 0.75 for maximum score, or ≥ 0.90 for this group's score sum), or there is a recent (within 5 yrs) onsite observation of any of these species by a qualified observer under conditions similar to what now occur	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		intermediate (i.e., not as described above or below)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	0	1	1	1	1	0	1	1
		low (≤ 0.33 for both the maximum score this group's score sum, but not 0 for both)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
		zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D27	*Invertebrate Species of Conservation Concern*	According to the Wetlands Explorer web site, the score for occurrences of rare invertebrate species in the vicinity of this AA is:																																		
		high (≥ 0.75 for maximum score, or for this group's score sum), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		low (< 0.75 for maximum score AND for this group's score sum, but not 0 for both)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
		zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1
D28	*Amphibian or Reptile of Conservation Concern*	According to the Wetlands Explorer web site, the score for occurrences of rare amphibian or reptile species in the vicinity of this AA is:																																		
		high (≥ 0.60 for maximum score, or >0.90 for score sum), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		intermediate (i.e., not as described above or below)	1	0	1	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1
		low (≤ 0.21 for maximum score AND <0.15 for score sum, but not 0 for both)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
		zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur	0	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Office Data Form (OF)		Wetland Group	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
D29	*Nesting Waterbird Species of Conservation Concern*	According to the Wetlands Explorer web site, the score for occurrences of rare nesting waterbird species in the vicinity of this AA is:																																		
		high (≥ 0.60 for maximum score, or ≥1.00 for this group's score sum), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		intermediate (i.e., not as described above or below)	1	1	1	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		low (≤ 0.09 for maximum score and for score sum, but not 0 for both)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur	0	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D30	*Feeding (Non-breeding) Waterbird Species of Conservation Concern*	According to the Wetlands Explorer web site, the score for occurrences of rare non-breeding (feeding) waterbird species in the vicinity of this AA is:																																		
		high (≥ 0.33 for maximum score, or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		low (< 0.33 for maximum score and for score sum, but not 0 for both)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
D31	*Songbird, Raptor, Mammal Species of Conservation Concern*	According to the Wetlands Explorer web site, the score for occurrences of rare songbird, raptor, or mammal species in the vicinity of this AA is:																																		
		high (≥ 0.60 for maximum score, or >1.13 for score sum), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		intermediate (i.e., not as described above or below)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		low (≤ 0.09 for maximum score AND <0.13 for score sum, but not 0 for both)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D32	*Plant Species of Conservation Concern*	According to the Wetlands Explorer web site, the score for occurrences of rare plant species in the vicinity of this AA is:																																		
		high (≥ 0.75 for maximum score, or > 4.00 for score sum), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		intermediate (i.e., not as described above or below)	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		low (≤ 0.12 for maximum score AND < 0.20 for score sum, but not 0 for both)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D33	*Floodable Property*	According to the Wetlands Explorer web site:																																		
		The AA is tidal, or is either (a) **not** within a 100-yr floodplain of a river, or (b) there are **no** inhabited buildings or cropland within 2 miles downslope that are within the 100-yr floodplain. Mark "1" then **SKIP TO D35.**	1	1	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Inhabited buildings within 1 mile downslope from the AA also are within the 100-yr floodplain	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Croplands but no inhabited buildings are within 1 mile downslope from the AA, and that cropland is also within the 100-yr floodplain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Inhabited buildings within **1-2 miles** downslope from the AA are also are within the 100-yr floodplain	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Croplands but no inhabited buildings are within 1-2 miles downslope from the AA, and that cropland is also within the 100-yr floodplain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		No floodplain data are available, and damage from river floods has not been known to have occurred within 2 miles downgradient. Mark "1" then **SKIP to D35**.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D34	*Downslope Storage*	Between the AA and any floodable buildings or cropland located within 2 miles downslope:																																		
		river flow is regulated **and** there are many seasonally ponded areas capable of storing water.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		river flow is regulated **or** there are many seasonally ponded areas capable of storing water.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NONE of the above	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D35	*Relative Elevation in Watershed*	According to Wetlands Explorer map showing this AA's position within its HUC4 watershed, the AA is [see last column and Manual for specific guidance]:																																		
		in the upper one-third of its watershed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		in the middle one-third of its watershed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		in the lower one-third of its watershed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
D36	Contributing Area (CA) Percent	**Based on the definition and protocol in the ORWAP manual** , the area of the **wetland** of which this AA is a part, relative to the wetland's **contributing area** (CA) is:	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		<1% of its CA (true if wetland is tidal, or along major river, or has many tributaries, or gets substantial water drawn from other surface water bodies, e.g., flood irrigation)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		1 to 10% of its CA	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		10 to 100% of its CA	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1
		Larger than the area of its CA (wetland has essentially no CA, e.g., isolated by dikes with no input channels, or is in terrain so flat that a CA can't be delineated). **SKIP TO D40.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D37	Unvegetated Surface in the Contributing Area	The proportion of the CA comprised of buildings, roads, parking lots, other pavement, exposed bedrock, and other impervious surface is about :	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		>25%	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		10 to 25%	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0
		<10%, or wetland is tidal	0	0	1	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1

Office Data Form (OF)		Wetland Group	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
D38	Upslope Storage	The cumulative area of **seasonally ponded areas** in the same CA is:	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		Much (>10x) greater than the area of this wetland (plus any contiguous pond or lake), **or inflow is strongly regulated by dams etc.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Somewhat greater than the area of this wetland (plus any contiguous pond or lake) and flows to wetland are not strongly regulated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	1	1
		Less than the area of this wetland (plus any contiguous pond or lake), or wetland is tidal, or no upslope wetlands/ ponds and no inflow regulation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	0	0	0
D39	Transport From Upslope	A relatively large **proportion** of the precipitation that falls farther upslope in the CA reaches this wetland quickly **as runoff (surface water),** as indicated by the following: (a) input channel is present, (b) CA slopes are steep, (c) input channels have been straightened, (d) upslope wetlands have been ditched extensively, (e) land cover is mostly non-forest, and/or (f) most CA soils are shallow and/or have high runoff coefficients). This statement is:	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		Mostly true	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Somewhat true	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0
		Mostly untrue, or wetland is tidal	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	1	1	1	1	1	1
D40	Known Water Quality Issues in the Input Water	Within 1 mile upstream from the wetland, at least one of the major **sources** of surface water to this wetland (at least seasonally) has been **designated** as Water Quality Limited (303d) for at least one of the parameters below. Obtain from web site only -- do not guess. Select all that apply.	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		total suspended solids (TSS), sedimentation, or turbidity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		phosphorus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
		nitrate or ammonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		toxics, dioxin, heavy metals (iron, manganese, lead, zinc, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		temperature	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		None of above, or degraded water cannot reach wetland, or no data.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1
D41	Known Water Quality Issues Below the Wetland	Within 1 mile downstream or downslope from this wetland, there is at least one stream or other water body that has been **designated** as Water Quality Limited (303d) for at least one of the parameters below. The water body need not be connected to the AA. Obtain from web site only -- do not guess. Select all that apply.	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		total suspended solids (TSS), sedimentation, or turbidity	0	0	0	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		phosphorus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		nitrate or ammonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		toxics, dioxin, heavy metals (iron, manganese, lead, zinc, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		temperature	1	0	0	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1
		None of above, or no data. Mark "1" then **SKIP TO D43**.	0	1	1	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0
D42	Type of Outflow Connection to 303d	At least part of the AA is connected to the downstream 303d water mentioned in D41 above:																																		
		for 9 or more continuous months annually (**persistent** water in a stream, ditch, lake, or other water body)	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
		intermittently (at least once annually, but for less than 9 months continually)	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Not connected, or connected less than annually	1	1	1	0	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	1	0
D43	Drinking Water Source (DEQ)	According to the ODEQ LASAR database, the AA is within:																																		
		the source area for a surface-water drinking water (DW) source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		the source area for a groundwater drinking water source	0	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
		Neither of above	1	1	1	0	0	0	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1
D44	Groundwater Risk Designations	The AA is (select all that apply):																																		
		within a designated Groundwater Management Area (ODEQ), see maps in Appendix A of ORWAP manual.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		within a designated Sole Source Aquifer area (EPA): the North Florence Dunal Aquifer. See map downloadable from: http://oregonstatelands.us/DSL/WETLAND/or_wet_prot.shtml	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		NONE of above	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D45	Mean Annual Precipitation	According to the PRISM Data Explorer (see ORWAP manual for instructions), annual precipitation in the vicinity of the wetland has normally been:																																		
		<10 inches per year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		10-12 inches per year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		13-19 inches per year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		20-47 inches per year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		48-77 inches per year	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		>77 inches per year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D46	County Rank for Phosphorus Loading	The phosphorus loading rank of the county in which the AA is located is: (select one); see **WQprob** worksheet in **ORWAP SuppInfo** file.																																		
		top 4 in Oregon (Marion, Malheur, Umatilla, Linn)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		top 18 (see Table 6 in WQprob worksheet in file **ORWAP_SuppInfo**)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		bottom 18 (see Table 6 in WQprob worksheet)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		bottom 4 (Josephine, Hood River, Lincoln, Clatsop)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D47	County Rank for Nitrogen Loading	The nitrogen loading rank of the county in which the AA is located is: (select one); see **WQprob** worksheet in **ORWAP SuppInfo** file.																																		
		top 4 in Oregon (Marion, Malheur, Umatilla, Linn)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		top 18 (see Table 7 in WQprob worksheet)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		bottom 18 (see Table 7 in WQprob worksheet)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		bottom 4 (Curry, Josephine, Lincoln, Clatsop)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Answer these final two questions only if the AA is tidal.																																				
D48	Estuarine Position	The AA's relative position in the estuary is (**SKIP** if nontidal):																																		
		lower 1/3 (often on a bay and distant from the head-of-tide of a major river; includes most saline tidal wetlands)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		mid 1/3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		upper 1/3 (near the head-of-tide of a major river; includes most brackish and fresh tidal wetlands)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D49	Salinity	The usual maximum water-surface salinity during high tide in summer in the main channel or bay closest to the AA is (**SKIP** if nontidal):																																		
		>30 parts per thousand (undiluted seawater)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5-30 ppt (mesohaline, polyhaline)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0.5 - 5 ppt (oligohaline)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<0.5 ppt (fresh)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		no data for nearby locations found at the ODEQ LASAR web site or from other sources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
F1	Presence of Specific Wetland Types	Does the AA contain, or is it part of, any of these wetland types? Mark "1" next to all that apply.	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**
		Tidal wetland: receives tidal water at least once during a normal year, regardless of salinity, and dominated by emergent or woody vegetation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Lacustrine wetland: an undiked non-tidal wetland bordering a body of standing **open water** that is >20 acres.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
		Fringe wetland: an undiked "shoreline" wetland bordering persistent open water that is >3 times wider than the wetland (includes most tidal, lacustrine, large riverine, some others).	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
		NONE of above	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1
F2	Wetland Type of Conservation Concern	Does the AA contain, or is it part of, any of these wetland types? Mark "1" next to all that apply. Consult the "Rare Wetland Type" reported for the general vicinity by the Oregon Explorer web site, but be aware that those may not apply to the exact AA you have delimited.	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**
		Bog or Fen: contains a sponge-like organic soil layer which covers most of the AA AND often has extensive cover of sedges and/or broad-leaved evergreen shrubs (e.g., *Ledum*). Often lacks tributaries, being fed mainly by groundwater and/or direct precipitation.	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Playa, Salt Flat, or Alkaline Lake : a non-tidal ponded water body usually having saline (salinity >1 ppt or conductivity >1000 µS) or alkaline (conductivity >2000 µS and pH >9) conditions and large seasonal water level fluctuations (if inputs-outputs unregulated). If a playa or salt flat, vegetation cover is sparse and plants typical of saline or alkaline conditions (e.g., *Distichlis* , *Atriplex*) are common.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Hot spring (anywhere in Oregon): a wetland where discharging groundwater in summer is >10 degrees (F) warmer than the expected water temperature.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Native wet prairie (west of the Cascade crest): a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, and dominated primarily by native graminoids often including species in column E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vernal pool (Willamette Valley): a seasonally inundated wetland, underlain by hardpan or claypan, with hummocky micro-relief, usually without a naturally-occurring inlet or outlet, and with native plant species distinctly different from those in slightly higher areas, and often including species in column E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vernal pool (Medford area): a seasonally inundated acidic wetland, underlain by hardpan, with hummocky micro-relief, usually without a naturally-occurring inlet or outlet, and having concentric rings of similar native vegetation, often including species in column E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vernal pool (Modoc basalt & Columbia Plateau): a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, located on shallow basalt bedrock and often having species in column E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Interdunal wetland (Coastal ecoregion): a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, located between sand dunes where wind has scoured the sand down to the water table (deflation plain), and often with significant cover of native species in column E.	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0	1	0	0	0
		Mature forested wetland (anywhere): a wetland in which mean diameter of trees (d.b.h., FACW and FAC species only) exceeds 18 inches, and/or the average age of trees exceeds 80 years, or there are >5 trees/acre with diameter >32 inches.	0	0	0	1	1	1	0	0	0	0	1	1	0	1	1	1	1	0	0	0	1	0	1	1	0	1	1	1	1	1	1	0	0	0
		Ultramafic soil wetland (mainly southwestern Oregon): a low-elevation wetland, usually with a sponge-like organic soil layer, occurring in an area with exposed serpentine or peridotite rock, and/or in soils with very low Ca:Mg ratios.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Wooded tidal wetlands with >30% cover of trees and shrubs. A wetland inundated at least once annually by tides and often dominated by woody plant species.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Undiked tidal freshwater wetland: an emergent or wooded wetland inundated at least once annually by tides and with surface salinity <0.5 ppt during most of spring and summer, and which has never been diked.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NONE of above	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	1	1
Is part of the site **tidal?** If yes, answer next 2 questions. If no, **SKIP TO # F5.**																																				
F3	Low Marsh	The percent of the vegetated part of the AA that is "low marsh" (covered by tidal water for part of almost every day) is:																																		
		>95% of the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-95% of the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		25-50% of the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-25% of the AA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<1% or none of the AA (high marsh only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F4	Tidal-Nontidal Hydroconnectivity	This tidal wetland is (select one):	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**	**W**
		contiguous to a non-tidal palustrine wetland that contains surface water at least seasonally, and mostly not separated by a dike or other barrier, allowing fish access to both wetlands during spring.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		contiguous to a non-tidal palustrine wetland that contains surface water at least seasonally, but mostly separated by a dike or other barrier, yet still allowing fish access to both wetlands during spring.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		not contiguous to a non-tidal palustrine wetland that contains surface water, but has an inflowing stream that allows fish during the springtime to access a non-tidal wetland < 1 mile upstream.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		not contiguous to a non-tidal palustrine wetland that contains surface water, but has an inflowing stream that allows fish during the springtime to access a non-tidal wetland > 1 mile upstream.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		not contiguous to a non-tidal palustrine wetland, and lacks an inflowing non-tidal stream that provides fish access to an upstream wetland that contains surface water at least seasonally.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
F5	Interrupted Hydroperiod	Select one:																																		
		during 4 of the last 5 years **most** of the AA has been **constantly covered** with surface water, but it went **mostly dry at least once.**	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		during 4 of the last 5 years **most** of the AA has been **constantly dry** on the surface (i.e., saturated only below the surface), but during at least one event **most of it was flooded,** even if only briefly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		neither of above	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1
		unknown	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
F6	Saturated-only Wetland	No part of the AA is ever inundated (contains at least 1 inch of water above the land surface) for more than 14 consecutive days during a normal year. That is, it is a **saturated-only** wetland. If true, mark "1" here, then **SKIP TO F39** (Herbaceous Extent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F7	Seasonal Water Extent	During normal years, the percent of the AA that is inundated **only seasonally** (more than 14 consecutive days but no more than 9 months, or in tidal wetlands is "high marsh" that is inundated by tides fewer than half the days in any month) is:																																		
		>75% of the AA	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		50-75% of the AA	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
		25-50% of the AA	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	1	1	0	0	1	0
		5-25% of the AA	0	0	0	1	0	1	0	0	1	0	1	1	0	1	1	1	1	0	1	1	0	0	0	0	0	1	0	1	0	0	1	1	0	1
		<5% of the AA, or none	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F8	Extent of Persistent Surface Water (**Dry** Season)	When the AA's surface water is at its **lowest** annual level, the percent of the AA still containing surface water (whether obscured by vegetation or not) is:																																		
		>95% of the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-95% of the AA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0		0	0
		25-50% of the AA	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	1	0	0	0
		1-25% of the AA	1	0	1	1	1	1	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1
		None of the above, and the AA contains or is part of a fringe wetland, **SKIP to F10**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		None of the above, and not a fringe wetland, **SKIP to F10**	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
F9	Onsite Surface Water Isolation (**Dry** Season)	When the AA's surface water is at its **lowest annual level** (for tidal wetlands = annual lowest tide), the percent of the surface water that is in or connected to flowing channels that exit the AA, compared to surface water that is outside of channels and their floodplains (e.g., in small depressions that do not connect annually to the channel if any), is:																																		
		all (100%) located in channels, swales, or other areas with a surface water connection to a river, lake, or estuary at all times of year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		75-99% in or connected to channels, swales, or contiguous lake/ estuary, 1-25% in isolated pools	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
		50-75% in or connected to channels, swales, or other areas with a surface water connection to a river, lake, or estuary at all times of year, 25-50% in isolated pools	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		25-50% in or connected to channels, swales, or other areas with a surface water connection to a river, lake, or estuary at all times of year, 50-75% in isolated pools	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-25% in or connected to channels, swales, or other areas with a surface water connection to a river, lake, or estuary at all times of year, 75-99% in isolated pools	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		all located in isolated pools or a single isolated pond from which no surface water exits when levels are lowest	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0	0	0	0
F10	Onsite Surface Water Isolation (**Wet** Season)	During **the wettest time of a normal year**, the percent of the surface water that is in or connected to ditches, swales, or flowing channels that exit the AA, compared to surface water that is in isolated pools that do not connect annually to channels or swales (if any), is:																																		
		all (100%) located in channels, swales, or in other areas with a wet-season surface connection to channels or to a contiguous lake or estuary	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
		75-99% in or connected to channels, swales, or contiguous lake/ estuary, 1-25% in isolated pools	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
		50-75% in or connected to channels, swales, or contiguous lake/ estuary, 25-50% in isolated pools	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		25-50% in or connected to channels, swales, or contiguous lake/ estuary, 50-75% in isolated pools	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-25% in or connected to channels, swales, or contiguous lake/ estuary, 75-99% in isolated pools	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		all located in isolated pools or a single isolated pond from which no surface water exits	1	1	1	0	0	0	1	1	1	1	0	0	1	1	0	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	0	0	1	0
F11	Predominant Water Fluctuation Range	During most years, the difference in surface water level between the driest and wettest time of year in **most** of the area that is not inundated year-round is:																																		
		>6 ft change	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		3-6 ft change	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0
		1-3 ft change	1	0	1	0	1	0	0	1	1	1	1	1	0	0	1	1	1	0	1	1	1	0	1	1	1	1	1	0	0	1	0	0	1	0
		0.5 - 1 ft change	0	1	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1
		<0.5 ft or no change (stable)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F12	Predominant Depth Class	When present, surface water in **most** of the AA is usually:																																		
		>6 ft deep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2-6 ft deep	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	1	1	0	0	1	1	1	1	1	1	0	0
		1-2 ft deep	0	1	1	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0
		0.5 - 1 ft deep	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		<0.5 ft deep (but >0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F13	Depth Class Distribution	When present, surface water in **most** of the AA usually consists of (select one):																																		
		One depth class (use the classes in F12) that comprises >90% of the AA's inundated area	0	1	1	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	0	0	1	1
		One depth class that comprises >50% of the AA's inundated area	1	0	0	1	1	1	0	0	0	1	0	0	0	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0
		Neither of above	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F14	Deep Spots	Ponded nontidal water deeper than 3 ft covers at least 1 acre or >5% of the AA during (check **all** that apply):																																		
		most of the period (generally, November-April) when waterfowl are migrating or wintering, and/ or amphibians are in aquatic phases	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	1	1	1	0	0
		most of the period (generally, May-August) when waterfowl are breeding	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0	1	1	0	0
		neither of above (no ponded water >3 ft deep is that extensive)	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	0	0	0	1	1	0	1	0	0	0	0	1	1
		impossible to tell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
F15	Open Water Interspersion With Partly Inundated Vegetation	Visualize the extent and distribution of **ponded open water** within the AA, relative to the distribution of the most dominant form of partly-submerged vegetation (herbaceous or woody, with stems and leaves >4" above the water surface). Visualize this **as it occurs during May** of most years. In the table to the right, first estimate the percent open water (left column) in the AA, then its distribution (top row). Select the highest applicable number and enter it in column D. See photographs in Appendix A of manual. **If the AA has no ponded water during May, score it "1."** If this is a fringe wetland, assume Open Water is >70%.	7	1	4	8	14	14	1	1	5	10	5	20	14	10	5	8	8	1	14	14	5	15	7	7	1	2	2	1	7	8	18	7	1	1
		Note: **Ponded** open water is surface water that is not visibly flowing and contains no vegetation (except perhaps floating-leaved or completely submersed species) and is not beneath a canopy of trees or shrubs. For tidal sites, consider the condition at average mid-tide.																																		
F16	Inflow	When surface water enters the AA, it enters as (select all applicable choices):																																		
		flow moving in streams, ditches, other channels	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		surface water exchanged broadly as overflow with contiguous waters such as an estuary, lake, or river	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
		water pumped into or intentionally diverted to the AA, e.g., as part of a stormwater dispersion system, irrigation practice, or drainage tile outlet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		groundwater, runoff, and direct precipitation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	0
F17	Groundwater	Select one:	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		Part of the wetland contains **strong evidence** of groundwater discharges at the wetland surface during summer: (a) Springs are observed or are shown on Wetland Explorer map, or (b) water is cooler in summer and warmer in winter than in other local wetlands, or (c) measurements from shallow wells indicate groundwater is discharging to the wetland.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Part of the wetland has **less definitive evidence** of discharging groundwater during summer. Wetland has no perennial tributary and is on organic, sandy, or gravelly soil (as determined in F58) AND has one or more: (a) outflow is present and persists during most of the summer or (b) on a natural slope of >5%, or (c) very close to the base of a natural slope steeper than 15%, and longer than 300 ft, or (d) located at a geologic fault, or (e) has rust deposits, colored precipitates, or dispersible natural oil sheen, or (f) within a mile of the top of a HUC4 watershed (see Wetland Explorer for boundaries).	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		Neither of above is true, although some groundwater may discharge to or flow through the wetland, and wetland is in a region of **eastern Oregon** with mean annual precipitation of less than 20 inches.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		None of the above	1	1	1	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1
F18	Outflow Duration	The **most durable** surface water connection between the **wetland** and the closest contiguous and/or downslope surface waters is:	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		persistent (>9 months/yr), or daily tidal exchange	0	1	0	1	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	1
		seasonal (14 days to 9 months/yr, not necessarily consecutive)	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		temporary (<14 days, not necessarily consecutive)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		none -- the wetland lacks an outlet. If so, mark "1" here and **SKIP TO F25** (Sheltering of Water).	1	0	1	0	0	0	1	1	0	1	0	1	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	0	0	1	0
F19	Outflow Confinement	During major runoff events, in the places where surface water exits the wetland it is:	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		impeded by a pipe, culvert, tidegate, narrowly breached dike, berm, beaver dam, or other obstruction (other than natural topography), or water is pumped out of the wetland (e.g., for irrigation)	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
		not impeded by anything other than (possibly) natural topography	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0
F20	Inlet+Outlet	Either the wetland has **BOTH an inlet and outlet** with seasonal or persistent surface flow, or the wetland is **tidal or lacustrine**. If so, enter "1" here and continue. **If neither condition met,** enter "0" here and then **SKIP to F25** (Sheltering of Water).	0	0	0	1	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
			W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
F21	Throughflow Complexity	During peak annual flow, **most of** the surface water that flows through the AA:																																		
		encounters little or no vegetation, boulders, or other sources of friction.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		mostly encounters herbaceous vegetation that offers little resistance, and water follows a fairly **straight** path from entrance to exit (few internal channels, only slight meandering)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		mostly encounters herbaceous vegetation that offers little resistance and follows a fairly **indirect** path from entrance to exit (non-channelized flow or many internal channels, or very braided or tightly meandering)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		encounters measurable resistance from fairly-rigid vegetation (e.g., **cattail, bulrush, woody** plants) or channel-clogging debris, and follows a fairly **straight** path from entrance to exit.	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		encounters measurable resistance from fairly-rigid vegetation (e.g., cattail, bulrush, woody species) or channel-clogging debris, and follows a fairly **indirect** path from entrance to exit.	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F22	Vegetated Zone Relative Width	During most of the time **open water** is present in the AA, vegetated areas within the AA, where they are contiguous to open water, are:																																		
		wider than the contiguous open water	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		narrower than the contiguous open water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
F23	Vegetated Zone Absolute Width	The average width of vegetated area in the AA that separates adjoining uplands (if any) from contiguous open waters (if any) is:																																		
		>300 ft, or no contiguous upland or open waters (not even temporary)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
		100-300 ft	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		25-100 ft	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5-25 ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<5 ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
F24	Undercut Banks	The percent of the AA's **water edge**, if any, that has undercut banks that are partially visible above the water is:																																		
		>75%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-75%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		25-50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-25%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
		<1%, or no definable water edge is present	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		cannot estimate	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F25	Sheltering of Water	At mid-day in summer, the area of surface water within the AA that is shaded by herbaceous or woody vegetation, incised channels, streambanks, or other features also present within the AA is:																																		
		>75% of the water	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		50-75% of the water	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	0	0	0	0
		25-50% of the water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		5-25% of the water	0	0	0	1	0	1	0	0	0	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	1	0	1	0	1	0	0	1	0	0
		<5% of the water	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(surface water is typically absent in summer or during low tide)	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0
F26	Abovewater Wood	The number of downed wood pieces thicker than 4 inches that remain only partly underwater during most of the spring or early summer, thus potentially serving as **basking sites** for turtles, birds, or frogs, is:																																		
		Several	1	1	0	1	1	1	1	0	0	1	1	1	0	1	1	0	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0
		Few or none, or AA never has any surface water at that time	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	1	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1
F27	Islands	Select all that apply:	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
		During **early summer** the wetland contains a floating vegetation mat suitable for nesting birds and isolated from the shore by water depths >3 ft. Or AA is an island with similar isolation and a gently-sloping water edge that is **mostly vegetated**.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		During early summer the wetland contains (or is) an island with a gently-sloping water edge, that is **mostly bare** and is isolated from the shore by water depths >3 ft.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Neither of above	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
F28	Shorebird Feeding Habitats	The maximum extent of **mudflats or unwooded shortgrass** areas within the AA during shorebird migration and wintering (generally August through through April (and for tidal AAs, during mean low tide) is usually:																																		
		none, or <100 sq. ft, and there are none that cover >10,000 sq. ft anywhere within 300 ft of the AA	0	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		none, or <100 sq. ft, but some that cover >10,000 are within 300 ft of the AA	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		100-1000 sq. ft. within AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1000 – 10,000 sq. ft. within AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>10,000 sq. ft within AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F29	Waves	Which of the following is most true:																																		
		Wind or boats frequently generate waves of >1 ft near the AA, those waves are intercepted by the wetland, and structures behind the AA are protected from wave erosion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Wind or boats frequently generate waves of >1 ft near the AA, those waves are intercepted by the wetland, but there are no structures behind the wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Neither wind nor boats frequently generate waves of >1 ft near the AA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
F30	Vectors for Waterborne Pests	Select all that apply:																																		
		a regularly-used boat dock is present within or contiguous to the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		a regularly-used boat dock is **not within the AA**, but there is one within 300 ft of the AA and there is a persistent or tidal surface connection between the dock and the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		large ships that empty ballast water are regularly present in nearby contiguous waters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		the AA has a **persistent or tidal surface water connection** (>9 mos./yr, via ditch, pipe, channel, tidegate, or floodplain) to a nearby perennial stream, river, lake, or estuary	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		none of the above	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
F31	Non-native Aquatic Animals	The following are known or likely to have reproducing populations in this AA, its wetland, or in water bodies within 300 ft that **connect to the AA at least seasonally**. Select all that apply:																																		
		non-native amphibians (e.g., bullfrog) or reptiles (e.g., red-ear slider)	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	1
		carp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		other non-native fish (e.g., bass, gambusia, walleye, crappie, brook trout)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
		non-native invertebrates (e.g., New Zealand mudsnail, mitten crab, rusty crayfish)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		nutria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		none of above, or unknown	0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1
For F32 to 34, if the statement is true, enter a "1" in column D. Otherwise that should be a "0"																																				
F32	Ice-free		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
F33	Ponded Threshold	During **most of the summer**, the AA contains more than 0.25 acre of ponded non-tidal surface water that is deeper than 1 ft, or is within 300 ft of such an area and the intervening habitat is not developed (roads, etc.). Or nesting within the AA by ducks, geese, or swans has been proven.	0	0	0	1	1	1	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	0	0
																					1															
F34	No Scum	During most summers, **less than** 80% of the AA's water surface is covered by floating algae, duckweed, and other non-rooted aquatic plants, AND no major fish kills occur. **If no surface water is present in summer**, **mark "1"** in column D.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
F35	Submerged & Floating-leaved Aquatic Vegetation (SAV)	**SAV** (submerged & floating-leaved aquatic vegetation) occupies an annual maximum of:																																		
		>95% of the surface water area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-95% of the surface water area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		25-50% of the surface water area	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
		5-25% of the surface water area	0	0	0	1	1	1	0	0	0	0	1	1	0	1	0	0	0	0	1	0	0	0	1	1	1	0	1	0	1	0	1	0	0	0
		<5% of the surface water area. Mark "1" here and **SKIP TO F39** (Herbaceous Extent).	1	1	1	0	0	0	1	1	1	0	0	0	1	0	1	1	1	1	0	1	0	0	0	0	0	1	0	1	0	1	0	0	1	1

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
F36	SAV Invasive vs. Non-invasive Cover	The areal cover of SAV at mid-summer is comprised of:																																		
		mostly invasive SAV species (see list in column E). Mark "1" here and underline the species in column E. **Then SKIP to F39.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		mostly non-invasive species	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0
		impossible to tell	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0
F37	SAV Native Species Dominance	Considering just the SAV species that are native:																																		
		one or two of those species together comprise >50% of the SAV cover. Mark "1" here and write names of dominant species in column E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0
		no two of the native SAV species together comprise >50% of the SAV cover	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		impossible to tell	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0
F38	SAV Species Ubiquity	Of all the SAV species in this AA:																																		
		all are species that are common among Oregon's wetlands and lakes.	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0
		at least one native species is a SAV plant that is **not** common among Oregon's wetlands and lakes, and it covers >1% of the SAV area or >100 sq. ft. See file ORWAP_SuppInfo, worksheet **P_UnCom.** Mark "1" in next column and write names of the species in column E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		impossible to tell	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0
Note: In the next 4 questions, "herbaceous" does not include SAV or herbaceous plants growing under a																																				
F39	Herbaceous Extent	The areal cover of **herbaceous** plants during **mid-summer** is:																																		
		>95% of the **vegetated** part of the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-95% of the vegetated part of the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		25-50% of the vegetated part of the AA	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
		5-25% of the vegetated part of the AA	1	0	0	1	1	1	0	1	0	0	0	1	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	1	0	1	0	1	1
		<5% of the vegetated part of the AA. Mark "1" here and **SKIP TO F44** (Woody Extent).	0	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0	1	1	0	1	1	1	0	1	0	1	0	0
F40	Graminoid vs. Forb Cover	When the areal cover of herbaceous plants is at an annual maximum, those plants are:																																		
		overwhelmingly graminoids (>80% cover of grasslike plants)	1	0	0	1	0	0	0	1	0	0	0	1	1	1	0	1	1	0	1	1	1	1	0	0	1	0	0	0	0	0	1	0	0	0
		mostly graminoids (50-80% cover)	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
		mostly non-graminoids (e.g., forbs, ferns) (50-80%)	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		overwhelmingly (>80%) non-graminoids	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F41	Herbaceous Native vs. Non-native Cover	The maximum annual areal cover of herbaceous plants is:																																		
		overwhelmingly (>80% cover) non-native species, of which >10% are species considered **invasive** (see column E). Mark "1" in next column and write names of dominant invasive species in column E. Then **SKIP to F43.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		overwhelmingly (>80% cover) non-native species, but **<10**% are considered invasive (see column E). Mark "1" in next column and write names of dominant non-native species in column E. Then **SKIP to F43.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		mostly (50-80%) non-native species, regardless of invasiveness. Mark "1" and **SKIP to F43**.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		mostly (50-80%) native species	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		overwhelmingly (>80%) native species	1	0	1	1	1	0	0	1	0	1	0	1	1	1	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1
F42	Herbaceous Species Dominance	Of just the herbaceous (forb and graminoid) species that are native:																																		
		one or two native species together comprise **>50%** of the areal cover of **native** herbaceous plants at any time during the year. Mark "1" in next column and write names of dominant native species in column E.	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
		no two of the native species together comprise >50% of the areal cover of native herbaceous plants	0	0	0	0	1	1	0	1	0	1	0	1	1	1	0	1	1	0	0	1	1	0	0	0	0	0	0	0	1	0	1	0	1	1
F43	Herbaceous Plant Species Ubiquity	Of all the herbaceous species in this AA:																																		
		all are species that are common among Oregon's wetlands.	1	0	1	1	0	0	0	1	0	1	0	1	1	1	0	1	1	0	1	1	1	1	0	0	1	0	0	0	0	0	1	0	1	1
		at least one native species is **not common** among Oregon's wetlands and it covers >1% of the AA's herbaceous area or >100 sq. ft (either contiguous or scattered). See file ORWAP_SuppInfo, worksheet **P_UnCom**. Mark "1" in next column and write names of the species in column E.	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
		Species referenced in F43					*Darlingtonia californica*	*Darlingtonia californica*																							*Juncus supiniformis*						
F44	Woody Extent Within the AA	Within the AA, woody vegetation (shrubs, trees, woody vines) occupies:																																		
		>95% of the vegetated part of the AA	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0
		50-95% of the vegetated AA	0	1	0	1	1	1	1	0	0	0	1	1	1	0	0	1	1	0	1	0	1	0	1	1	0	0	1	1	1	0	1	1	1	1
		25-50% of the vegetated AA	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		5-25% of the vegetated AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		<5% of the vegetated AA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F45	Woody Extent Along Water Edge	Where surface water is present **during the wettest time of year**, the AA's woody vegetation occupies:																																		
		>95% of the area **within 100 ft of the open water**	0	0	0	0	1	0	0	1	1	0	0	0	0	1	1	0	1	1	0	1	1	0	0	0	0	1	0	0	0	1	1	1	0	1
		50-95% of the area within 100 ft of open water	0	1	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	1	0	0	1	1	1	1	0	1	1	1	1	0	0	0	1	0
		25-50% of the area within 100 ft of open water	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5-25% of the area within 100 ft of open water	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<5% of the area within 100 ft of water; mark "1" here and **SKIP TO F50** (Woody Diameter Classes).	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F46	Woody Distribution	The woody vegetation (if any) within the AA is:																																		
		clumped in fairly distinct bands or patches mostly separate from herbaceous vegetation, and **most patches or bands are large** (>1 acre including contiguous upland woody veg). Or nearly the entire AA is wooded. Isolated shrubs or trees are few.	0	1	1	1	1	1	0	1	1	0	1	0	0	0	1	0	1	1	0	1	1	0	1	1	1	0	1	1	1	0	0	1	1	0
		clumped in fairly distinct bands or patches mostly separate from herbaceous vegetation, and **most patches are small** (<1 acre including contiguous upland woody veg).	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
		dispersed quite evenly amid the herbaceous vegetation, in many small patches, or many isolated shrubs or trees.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
F47	Cover of Woody Invasives	Within parts of the AA having shrubs or woody vines, the areal cover is:																																		
		overwhelmingly (>80%) non-natives that are categorized as **invasive** (see column E). Mark "1" in next column and write names of dominant invasives in column E. Then SKIP to **F49**.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		overwhelmingly **other non-natives.** Mark "1" in next column and write names of dominant non-native shrubs/ vines in column E. Then SKIP to **F49.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		mostly (50-80%) non-natives. Mark "1" in next column and write names of dominant non-native shrubs/ vines in column E. Then SKIP to **F49.**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		mostly (50-80%) **natives**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		overwhelmingly (>80%) natives	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
F48	Shrub & Vine Species Dominance	Of just the shrub & woody vine species that are native:																																		
		one or two of the **native** species together comprise **>80% of the native shrub & vine** cover. Mark "1" in next column and write names of dominant species in column E.	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	1
		no two of the native species together comprise >80% of the native shrub & vine cover	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0
F49	Shrub & Vine Species Ubiquity	Of all the shrub & woody vine species in this AA:																																		
		all are species that are **common** among Oregon's wetlands.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		at least one native species is **not common** among Oregon's wetlands and it covers >1% of the AA or >100 sq. ft See file ORWAP_SuppInfo, worksheet **P_UnCom.** Mark "1" in next column and write species in column E.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Species referenced in F49																																		
F50	Woody Diameter Classes	Select all the types occupying >5% **of the wooded part** of the AA **or** >5% **of its wooded upland edge** if any.																																		
		deciduous 1-4" diameter and >3 ft tall	0	1	0	1	1	1	0	1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
		evergreen 1-4" diameter and >3 ft tall	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1
		deciduous 4-9" diameter	0	1	0	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1	1	1	1
		evergreen 4-9" diameter	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		dead standing 4-9" diameter	0	0	0	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	0	1	0	0	1	1	1	1
		deciduous 9-21" diameter	0	1	0	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	0	0	0	0	1	0	0	1	1	1	1
		evergreen 9-21" diameter	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1
		dead standing 9-21" diameter	0	0	0	1	0	0	0	1	0	0	1	1	0	1	1	0	1	0	0	0	1	1	0	0	0	0	0	1	1	0	1	1	1	0
		deciduous >21" diameter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		evergreen >21" diameter	0	0	0	1	1	0	0	1	0	0	0	1	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0
		dead standing >21" diameter	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Lacks woody vegetation, or none of above occupy >5% of the **wooded** part of the AA or 5% of the length of the upland edge.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F51	N Fixers	Within the vegetated part of the AA, the cover of nitrogen-fixing plants (e.g., alder, sweetgale, legumes) is:																																		
		<1% or none	1	0	1	0	0	0	1	1	0	1	0	0	1	0	0	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	0	0	1	0
		1-25%	0	1	0	1	1	1	0	0	1	0	1	1	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	1	1	0	1
		25-50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-75%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>75%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F52	Waterfowl Food Plants	The percent of the vegetated part of the AA, **excluding areas that are never inundated**, which contains one or more of these plants: Alisma spp., Beckmannia spp., Polygonum spp. (natives only), Potomogeton (Stuckenia) spp., Ruppia spp., Sagittaria spp., Sparganium spp., Zostera spp., is:																																		
		<1% or none, and none are known to occur commonly within the same wetland or within 300 ft of this AA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		<1% or none, but some are known to occur commonly within the same wetland or within 300 ft of this AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		10-50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F53	History of Fire or Vegetation Removal	The last time that >5% of the AA's vegetation cover was burned or harvested for hay or timber was:																																		
		0-12 months ago, and this occurs almost annually within part of the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0-12 months ago, but was not an annual (or near-annual) event	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-5 years ago	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>5 years ago, or never	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
		unknown	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
F54	Height Uniformity of Dominant Stratum	**Within** the stratum (herbaceous, shrub, or tree) that covers the most onsite area, the wetland plants **during maximum annual cover** condition are mostly:																																		
		of nearly uniform height (+ or - 20% of average)	1	1	1	0	0	0	1	0	0	0	0	0	1	0	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
		of very diverse heights (e.g., short & tall forbs, short & mid-height grasses)	0	0	0	1	1	1	0	1	1	1	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
F55	Bare Ground & Accumulated Plant Litter	Consider the parts of the AA that usually are not inundated in May, or are inundated by tides at least once annually. Viewed **from 6 inches above the soil surface**, the condition in **most** of this area **during May** is:																																		
		little or no (<5%) *bare ground* or plant litter (thatch) is visible between erect stems or under canopy. This can occur if ground surface is extensively blanketed by moss, graminoids with great stem densities, or plants with ground-hugging foliage.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		some (5-20%) bare ground or litter is visible. Herbaceous plants have moderate stem densities and do not closely hug the ground.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
		much (20-50%) bare ground or plant litter is visible. Low stem density and/or tall plants with little near-ground foliage. May be mostly woody plants, woody vines, cattail, bulrush, sparse annuals.	0	0	0	1	1	1	0	1	0	0	0	1	0	0	1	0	1	1	0	1	1	0	1	1	0	0	1	0	1	0	1	0	1	1
		mostly (>50%) bare ground or accumulated plant litter. Or, during May the entire AA is constantly under water.	1	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	0	0	0

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
			W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
F56	Upland Edge Shape Complexity	Most of the edge between the wetland and upland is (select one):																																		
		Linear: a significant proportion of the wetland's upland edge is straight, as in wetlands bounded by partly or wholly by dikes or roads	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Convoluted: Wetland perimeter is many times longer than maximum width of the wetland, with many alcoves and indentations ("fingers")	0	0	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
		Intermediate: Wetland's perimeter either (a) is only mildly convoluted, or (b) mixed -- contains about lengths of linear and convoluted segments.	1	1	1	0	0	1	0	0	1	1	0	0	1	0	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1
F57	Upland Inclusions	The extent of inclusions of upland within the AA (as indicated by their topography, plants, and/or soils) is:																																		
		Many (e.g., wetland-upland "mosaic")	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0
		Few or none	1	1	1	1	0	0	1	1	1	1	1	0	1	0	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	0	1	1	1
F58	Soil Composition in the Soil Pit	The composition of the soil in the soil pit at the ground surface (uppermost soil layer and excluding the *duff layer,* **see protocol in ORWAP Manual, section 2.3.2**) is:																																		
		Loamy : includes silt, silt loam, loam, sandy loam	0	0	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Clayey : includes clay, clay loam, silty clay, silty clay loam, sandy clay, sandy clay loam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Organic : includes muck, mucky peat, peat, and mucky mineral	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
		Coarse : includes sand, loamy sand, gravel, cobble, stones, boulders, fluvents, fluvaquents, riverwash	1	1	1	0	0	1	1	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1
F59	Downed Wood	The number of downed wood pieces **longer than 6 ft** and with diameter **>6",** and **not persistently submerged**, is:																																		
		Several (>5 if AA is >10 acres, or >2 for smaller AAs)	0	0	0	1	1	1	0	1	0	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	0	0	1	1	1	0	1	1	1	0
		Few or none	1	1	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1
F60	Ground Irregularity	The number of animal burrows, mounds, hummocks, boulders, upturned trees, islands, natural levees, dry channels, pits, wide soil cracks, and microdepressions (in parts of the AA that lack persistent water) is:																																		
		Several (extensive micro-topography)	0	0	0	1	1	0	0	0	0	1	1	1	0	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
		Few or none (minimal microtopography; <1% of the area that isn't persistently inundated); e.g., many flat sites having a single hydroperiod	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	0	0	0
		Intermediate	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	1
F61	Internal Gradient	The gradient along most of the AA's water flow paths (both sheet and channel flow) is:																																		
		>10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		6-10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2-5%	1	1	1	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	1	0	0	1	0	1
		Flat (<2%, no slope or flow is ever apparent, or AA is an estuarine fringe wetland). Includes most depressional sites	0	0	0	0	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	1	1	0	1	0
F62	Fish Access From Offsite	Small fish (e.g., stickleback, minnow) from elsewhere in the watershed can access part of this AA for at least 2 days during most years or are known to already be present onsite.	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	1
F63	Nesting or Roosting Structures	Within the AA or within its wetland or within 300 ft of AA, there are bridges, buildings, caves, or ledges with openings/ crevices, well-maintained bird or bat boxes, elevated platforms, or other artificial structures suitable for nesting by some native bird or bat species.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F64	Cliffs, Banks, or Beaver	In the AA or within its wetland or within 100 ft of the AA, there are elevated terrestrial features such as cliffs, stream banks, excavated pits, or pumice walls (but not riprap) that extend at least 6 ft nearly vertically, are unvegetated, and potentially contain crevices or other substrate suitable for nesting or den areas. Or there is evidence that **beaver** have used this AA (e.g., gnawed limbs).	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F65	*Visibility*	The maximum percent of the wetland that is visible from the best vantage point on public roads, public parking lots, public buildings, or public paved paths that adjoin or are within 300 ft of the AA (select one) is:																																		
		>50%	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		25-50%	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	1	0	1	0	0	0	0	0	0
		<25%	0	0	0	1	1	1	0	1	0	0	1	1	1	1	1	1	1	0	0	0	1	0	1	1	0	0	1	0	1	1	1	1	1	1
F66	*Ownership*	Most of the AA is (select one):																																		
		in public ownership	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	1	0
		in private ownership	0	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	0	1
F67	*Public Access*	For most of the AA, permission for access is normally given or allowed:																																		
		to anyone, mostly unrestricted	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	1	0
		to anyone, but significant restrictions (e.g., limited dates, permit required)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		only on a case-by-case basis, but with few other restrictions	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		only on a case-by-case basis, with restrictions (e.g., limited dates, permit required)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		seldom or never	0	1	0	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	1
		(do not know)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
F68	*Non-consumptive Uses - Actual or Potential*	Assuming access permission was granted, select all statements that are true of this AA as it currently exists:																																		
		Walking is physically possible in >5% of the AA during most of year, e.g., free of deep water and dense shrub thickets	1	0	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0
		All or part of the AA (or an area within sight of the AA and within 100 ft) would be physically accessible to people in wheelchairs, e.g., paved and flat	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Maintained roads, parking areas, or foot-trails are within 30 ft of the AA, or the AA can be accessed most of the year by boat	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1	0	0	0	1	1	1	0	0	1	1	0	0
F69	*Sustained Scientific Use*	Plants, animals, or water in the AA have been monitored for >2 years, unrelated to any regulatory requirements, and data are available to the public. Or the AA is part of an area that has been designated by an agency or institution as a benchmark, reference, or status-trends monitoring area.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(do not know)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F70	Consumptive Uses (Provisioning Services)	Recent evidence was found within the AA of the following potentially-sustainable consumptive uses. Select all that apply.																																		
		low-impact commercial timber harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		low-impact grazing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		commercial harvesting of hay or mushrooms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		waterfowl hunting or furbearer trapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		fishing (including shellfish harvest)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
		None of the above	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1

Field F Data Form		Wetland Group	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
Q#	**Indicator**	**Conditions**	**Indicator answers: 1 = Yes / 0 = No**																																	
F71	Domestic Wells	Wells that currently provide drinking water are:																																		
		Within 500 ft and downslope from the AA or at same elevation	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		500-1000 ft and downslope or at same elevation	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>1000 ft downslope, or none downslope, or AA is tidal, or no information	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
F72	Sediment Removal	Excessive accumulation of sediment has caused frequent problems for large boats, with shoaling necessitating frequent dredging, in waters that are located:																																		
		contiguous to the AA, or <1 mile downslope from the AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
		1-5 miles downslope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		>5 miles downslope, or no shoaling, or no boats, or no information	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
F73	Devegetation	The percent of the AA's vegetation cover that normally grows taller than 4 inches but which has been persistently reduced to less than that height by mowing (many times per year), plowing, and/or grazing by domestic or wild animals is:																																		
		>95%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-90%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5-50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<5%, or grazing/ mowing does not cause the described condition	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
F74	Core Area 1	The part of the AA **almost never** visited by humans during an average year probably comprises:																																		
		>95% of the AA	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
		50-95%	0	0	0	0	1	1	0	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	1	1	1
		5-50% and inhabited building is within 300 ft of the AA, or <5% and no inhabited building is within 300 ft of the AA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	1	1	0	0	1	0	0	0
		none of the above	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F75	Core Area 2	The part of the AA visited by humans **almost daily for several weeks** during an average year probably comprises:																																		
		>95% of the AA	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		50-95%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5-50%	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	1	0	0	0
		<5%	0	1	0	1	1	1	0	1	1	1	1	1	0	1	1	0	0	0	1	1	0	0	1	1	1	0	0	0	1	1	0	1	1	1
F76	Weed Source Along Upland Edge	Along the AA's boundary with upland, the percent of the **upland** edge (within 10 ft of AA) that is occupied by species that are marked as **invasive** in the Plants worksheet is:																																		
		most (>50%) of the upland edge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		much (5-50%) of the upland edge	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
		some (1-5%) of the upland edge	1	0	0	1	1	1	0	1	0	1	1	1	0	1	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0
		none of the upland edge (invasives apparently absent), or AA is not within 10 ft of upland	0	1	1	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0
F77	Natural Land Cover in Buffer	Within **100 ft upslope** of the AA's wetland-upland boundary, the percent of the upland that contains *natural* (**not necessarily native**) land cover is:																																		
		>90%, or there is no upland boundary	0	0	1	0	0	0	0	1	1	0	0	1	0	1	1	0	0	0	0	0	0	1	1	1	1	0	0	1	0	1	1	1	1	0
		60 to 90%	0	1	0	1	1	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
		30 to 60%	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0
		5 to 30%	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		<5%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F78	Type of Land Cover Alteration in Buffer	Within **100 ft upslope** of the AA's wetland-upland boundary, the upland land cover that is not natural (as defined above) is mostly:																																		
		impervious surface, e.g., paved road, parking lot, building, exposed rock	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0
		bare pervious surface, e.g., dirt road, dike, dunes, recent clearcut, landslide	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0
		cultivated row crops or orchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		artificially landscaped areas or lawn	0	0	0	1	1	1	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
		grain fields, or grassland grazed or mowed to a height usually shorter than 4 inches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(buffer is >90% natural land cover or AA occupies all of an island)	0	0	0	0	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	0
F79	*Buffer Slope*	Along the AA's **wetland-upland boundary and extending 100 ft uphill,** the slope of the land is mostly:																																		
		<1% (flat -- almost no noticeable slope, or there is no upland boundary)	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
		2-5%	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
		5-30%	1	1	1	0	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	0	1
		>30%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F80	Edge Slope	Within 10 ft **of ponded surface water** (if any) in early summer, the percent of the herbaceous area (wetland or upland) that has a gentle or moderate slope (less than 5% slope) is:																																		
		>75%	0	0	0	1	0	0	1	0	0	0	0	1	1	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0
		50-75%	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
		25-50%	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1-25%	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0
		<1%,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		(ponded surface water in early summer covers <1% of AA, or AA is tidal, or no herbaceous vegetation is present near ponded water)	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1
F81	Independently Sustainable Hydrology	How likely is it that any or all of this AA will persist as a wetland (not necessarily of the same type) if an existing dike or berm, water control structure (e.g., dam, weir), or pumping/ diversion system that now helps sustain it -- and is within 1 mile of the AA -- was removed or became inoperable?																																		
		Very likely, or no such feature is present (greater sustainability potential)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Somewhat likely -- part but not all of the AA would remain a wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Unlikely or not at all (lower sustainability potential)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field S Data Form | Wetland Group | 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

'x' indicates that the condition was deemed satisfied; or activity is or was present

S1 **Wetter Water Regime - *Internal* Causes**

In the last column, place an **X** next to any item that is likely to have caused a part of the AA to be **inundated** more extensively, more frequently, more deeply, and/or for longer duration than it would be without that item or activity. (The items you check are not used automatically by ORWAP. They are included simply so they may be considered when evaluating the factors in the table beneath them).

an impounding dam, dike, levee, weir, berm, road fill, or tidegate -- within or downgradient from the AA, or raising of outlet culvert elevation.				x	x		x	x			x	x						x		x					x		x							
excavation within the AA, e.g., artificial pond, dead-end ditch																					x							x							
excavation or reflooding of upland soils that adjoined the AA, thus expanding the area of the AA																												x							
plugging of ditches or drain tile that otherwise would drain the AA (as part of intentional restoration, or due to lack of maintenance, sedimentation, etc.)																																			
vegetation removal (e.g., logging) within the AA																												x							
compaction (e.g., ruts) and/or subsidence of the AA's substrate as a result of machinery, livestock, or off road vehicles																					x		x	x											
changes not related directly to humans, e.g., beaver																																			

If **any** items were checked above, then for each row of the table below, assign points (3, 2, or 1) in the last column that describe the **combined** maximum effect of those items in

	Severe (3 points)	Medium (2 points)	Mild (1 pt)	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts
Spatial extent of resulting wetter condition	>95% of AA or >95% of its upland edge (if any)	5-95% of AA or 5-95% of its upland edge (if any)	<5% of AA and <5% of its upland edge (if any)	0	0	0	1	1	0	2	2	0	0	1	1	0	0	0	0	0	1	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0
When most of AA's wetter condition began	<3 yrs ago	3-9 yrs ago	10-100 yrs ago	0	0	0	1	1	0	1	1	0	0	2	1	0	0	0	0	0	1	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0
Score the following 2 rows only if the wetter conditions began within past 10 years, and only for the part of the AA that got wetter.																																			
Inundation now vs. previously	persistent vs. seldom	persistent vs. seasonal	slightly longer or more often	0	0	0	1	1	0	1	1	0	0	1	1	0	0	0	0	0	1	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0
Average water level increase	>1 ft	6-12"	<6 inches	0	0	0	1	0	0	1	1	0	0	1	2	0	0	0	0	0	1	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0
* Score these 2 rows only for the part of the AA that got wetter, and only if the wetter conditions began within past 10 yrs			sum=	0	0	0	4	3	0	5	5	0	0	5	5	0	0	0	0	0	4	0	4	4	0	4	4	0	4	0	4	0	0	0	0	0
0 if Sum= 0, (**1** pt) if Sum= 1-4. (**2** pt) if 5-6. (**3** pt) if 7-8. (**4** pt) if 9-10. (**5** pt) if >10.			final score=	0	0	0	1	1	0	2	2	0	0	2	2	0	0	0	0	0	1	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0

S2 **Wetter Water Regime - *External* Causes**

In the last column, place an X next to any item **occurring in the CA** (including channels flowing into the AA) that is likely to have caused a part of the AA to be inundated more extensively, more frequently, more deeply, and/or for longer duration than it would be without that item or activity. **Remember that if the AA is flooded as little as once every 2 years by river flow, the CA includes all upstream areas of that river** .

subsidies from stormwater, wastewater effluent, septic system leakage, or irrigation water (direct or via seepage)	x	x	x	x	x	x	x	x							x			x	x	x	x	x		x		x	x	x			x	x		x
pavement, ditches, or drain tile in the CA that incidentally increase the transport of water into the AA	x					x																x				x	x	x						x
removal of timber or phreatophytes in the CA or along the AA's tributaries						x																													
removal of a water control structure or blockage in tributary upstream from the AA																																			
changes in the CA that are not related directly to humans, e.g., channel migration, landslides, forest die-offs, seismic activity																																			

If any items were checked above, then for each row of the table below, assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in

	Severe (3 pts)	Medium (2 pts)	Mild (1 pt)	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts	Pts
Spatial extent of resulting wetter condition	>20% of the AA	5-20% of the AA	<5% of the AA	1	2	1	1	1	2	2	2	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	0	1
When most of AA's wetter condition began	<3 yrs ago	3-9 yrs ago	10-100 yrs ago	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	0	1	2	1	0	0	1	1	0	1
Score the following 2 rows only if the wetter conditions began within past 10 years, and only for the part of the AA that got wetter.																																				
Inundation now vs. previously	persistent vs. seldom	persistent vs. seasonal	slightly longer or more often	0	0	1	1	0	1	1	1	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	0	1
Average water level increase	>1 ft	6-12"	<6 inches	0	0	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	0	1
* Score this row only for the part of the AA that got wetter, and only if the wetter conditions began within past 10 yrs			sum=	2	3	4	4	3	5	5	5	0	0	0	0	0	0	4	0	0	4	4	4	4	4	0	4	0	4	5	4	0	0	4	4	0	4
0 if Sum= 0, (**1** pt) if Sum= 1-4. (**2** pt) if 5-6. (**3** pt) if 7-8. (**4** pt) if 9-10. (**5** pt) if >10.			final score=	1	1	1	1	1	2	2	2	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	0	1	2	1	0	0	1	1	0	1

Field S Data Form	Wetland Group	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
		'x' indicates that the condition was deemed satisfied; or activity is or was present																																	
S3	**Drier Water Regime - Internal Causes**																																		
	In the last column, place an X next to any item located **within or immediately adjacent to** the AA, that is likely to have caused a part of the AA to be inundated less extensively, less deeply, less frequently, and/or for shorter duration that it would be without that item.																																		
	ditches or drain tile **in the AA or along its edge** that accelerate outflow from the AA																					x													
	lowering or enlargement of a surface water exit point (e.g., culvert) or modification of a water level control structure, resulting in quicker drainage																																		
	accelerated downcutting or channelization of an adjacent or internal channel (cut below the historical water table level)																																		
	deep ripping (e.g., with plows) that severs an underlying hydrologically-confining soil layer																																		
	placement of fill material																					x													
	withdrawals (e.g., pumping) of natural surface or ground water directly out of the AA (not its tributaries)																																		
	If any items were checked above, then for each row of the table below assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in creating a drier water regime in the AA. To estimate that, contrast it with the condition if checked items never occurred or were no longer present.																																		
		Severe (3 pts)	Medium (2 pt)	Mild (1 pt)																															
	Spatial extent of AA's resulting drier condition	>95% of AA or >95% of its upland edge (if any)	5-95% of AA or 5-95% of its upland edge (if any)	<5% of AA and <5% of its upland edge (if any)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
	When most of AA's drier condition began	<3 yrs ago	3-9 yrs ago	10-100 yrs ago	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Score the following 2 rows only if the drier conditions began within past 10 years, and only for the part of the AA that got drier.																																		
	Inundation now vs. previously	seldom vs. persistent	seasonal vs. persistent	slightly shorter or less often	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Water level decrease	>1 ft	6-12"	<6 inches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
				sum=	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
	0 if Sum= 0, (**1** pt) if Sum= 1-4. (**2** pt) if 5-6. (**3** pt) if 7-8. (**4** pt) if 9-10. (**5** pt) if >10.			final score=	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
S4	**Drier Water Regime - External Causes**																																		
	In the last column, place an X next to any item **within the CA** (including channels flowing into the AA) that is likely to have caused a part of the AA to be inundated less extensively, less deeply, less frequently, and/or for shorter duration that it would be without those.																																		
	a dam, dike, levee, weir, berm, or tidegate that interferes with natural inflow to the AA																			x															
	relocation of natural tributaries whose water would otherwise reach the AA				x																														
	instream water withdrawals from tributaries whose water would otherwise reach the AA																																		
	groundwater withdrawals that divert water that would otherwise reach the AA				x																														
	proliferation of phreatophytes (woody plants with deep roots and high transpiration, e.g., juniper, autumn olive) or crops with high transpiration rates that are near the AA																																		
	changes not related directly to humans																																		
	If any items were checked above, then for each row of the table below assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in creating a drier water regime in the AA. To estimate that, contrast it with the condition if checked items never occurred or were no longer present.																																		
		Severe (3 pts)	Medium (2 pts)	Mild (1 pt)																															
	Spatial extent of AA's resulting drier condition	>20% of the AA	5-20% of the AA	<5% of the AA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	When most of AA;s drier condition began	<3 yrs ago	3-9 yrs ago	10-100 yrs ago	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Score the following 2 rows only if the drier conditions began within past 10 years, and only for the part of the AA that got drier.																																		
	Inundation now vs. previously	seldom vs. persistent	seasonal vs. persistent	slightly shorter or less often	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Water level decrease	>1 ft	1-12"	<1 inch	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
				sum=	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	0 if Sum= 0, (**1** pt) if Sum= 1-4. (**2** pt) if 5-6. (**3** pt) if 7-8. (**4** pt) if 9-10. (**5** pt) if >10.			final score=	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
S5	**Altered Timing of Water Inputs**																																		
	In the last column, place an X next to any item that is likely to have caused the **timing** of water inputs (but not necessarily their volume) to shift by hours, days, or weeks, becoming either **more muted** (smaller or less frequent peaks spread over longer times, more temporal homogeneity of flow or water levels) **or more flashy** (larger or more frequent spikes but over shorter times).																																		
	flow regulation in tributaries or water level regulation in adjoining water body, or tidegate or other control structure at water entry points that regulates inflow to the AA																																		
	increased pavement and other impervious surface in the CA	x	X	x	x	x	x	x	x							x				x	x	x	x		x	x	x	x	x	x	x	x	x		x
	straightening, ditching, dredging, and/or lining of tributary channels in the CA						x																												
	discharges of irrigation water to the AA, applied at times when natural runoff typically is not significant				x		x																												
	other																																		
	If any items were checked above, then for each row of the table below assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items on the timing of water inputs to the AA. To estimate that, contrast it with the condition if checked items never occurred or were no longer present.																																		
		Severe (3 pts)	Medium (2 pts)	Mild (1 pt)																															
	Spatial extent within the AA of timing shift	>95% of AA	5-95% of AA	<5% of AA	2	1	1	2	1	2	1	2	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	0	1
	When most of the timing shift began	<3 yrs ago	3-9 yrs ago	10-100 yrs ago	2	1	1	2	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	1	1	2	1	1	1	1	1	0	1
	Score the following 2 rows only if the altered inputs began within past 10 years, and only for the part of the AA that experiences those.																																		
	Input timing now vs. previously	shift of weeks	shift of days	shift of hours or minutes	0	0	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1
	Flashiness or muting	became very flashy or controlled	intermediate	became mildly flashy or controlled	0	0	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1
				sum=	4	2	4	6	4	5	4	5	0	0	0	0	0	0	4	0	0	0	4	4	4	4	0	4	4	4	5	4	4	4	4	4	0	4
	0 if Sum= 0, (**1** pt) if Sum= 1-4. (**2** pt) if 5-6. (**3** pt) if 7-8. (**4** pt) if 9-10. (**5** pt) if >10.			final score=	1	1	1	2	1	2	1	2	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	1	1	2	1	1	1	1	1	0	1

Field S Data Form | Wetland Group | 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

'x' indicates that the condition was deemed satisfied; or activity is or was present

S6 **Accelerated Inputs of Nutrients, Contaminants, and/or Salts**

In the last column, place an X next to any item -- occurring in **either the AA or its CA** -- that is likely to have accelerated the inputs of nutrients, contaminants, or salts to the AA

stormwater or wastewater effluent (including failing septic systems), landfills	x	X	x	x	x	x	x	x	x	x	x				x			x	x	x	x	x		x	x		x	x	x	x	x			x
irrigation water discharges into the AA, including saline seeps				x		x															x														
livestock, dogs					x	x																													
fertilizers applied to lawns, ag lands, or other areas in the CA	x				x	x																x	x		x								x		x
pesticides applied to lawns, ag lands, roadsides, or other areas in the CA, but excluding spot applications for controlling non-natives in the AA	x			x	x	x									x								x									x		x
dumping of large amounts of wood, leaves, grass clippings, trash into the AA or its tributaries																			x		x														
artificial drainage of upslope lands																					x														
reflooding of soils that had been dry for many years																																			
fire retardants from aerial firefighting																																			
oil or chemical spills (not just chronic inputs) from nearby roads																																x			
erosion of nutrient-rich or contaminated soils																																			
chemical wastes from mining, oil/ gas extraction, other industrial sources																																			
other human-related disturbances within the CA	x		x																																
sources not related directly to humans, e.g., fire, extensive cover of nitrogen-fixing plants (e.g., alder), concentrations of waterbirds or other wildlife																																			

If any items were checked above, then for each row of the table below assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in generating loads of nutrients, contaminants, or salts reaching the AA. To estimate that, contrast it with the condition if checked items never occurred or were no longer present.

	Severe (3 pts)	Medium (2 pts)	Mild (1 pt)																																
Usual toxicity of most toxic contaminants	industrial effluent or 303d* for toxics	domestic effluent, cropland, or 303d for nutrients	mildly impacting (livestock, pets, low density residential)	2	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	2	1	0	1	1	0	1	1	1	1	1	1	0	1
Frequency & duration of input	frequent and year-round	frequent but mostly seasonal	infrequent & during high runoff events mainly	2	1	3	2	2	2	1	1	1	1	1	0	0	0	1	0	0	1	1	1	2	2	0	1	1	0	1	1	1	1	1	1	0	1
AA proximity to main sources (actual or potential)	0-50 ft	50-300 ft or in groundwater	in other part of contributing area	3	2	3	2	2	2	3	1	2	2	1	0	0	0	1	0	0	1	1	1	3	1	0	1	2	0	2	3	1	1	2	1	0	1
* categorized by ODEQ as Water Quality Limited (303d) and toxic substances are listed by ODEQ as one reason. See item D40 in data form OF.			sum=	7	4	7	5	5	5	5	3	4	4	3	0	0	0	3	0	0	3	3	3	7	4	0	3	4	0	4	5	3	3	4	3	0	3
0 if Sum= 0, (**1** pt) if Sum= 1-3. (**2** pt) if 4-5. (**3** pt) if 6-7. (**4** pt) if 8. (**5** pt) if 9.			final score=	3	2	3	2	2	2	2	1	2	2	1	0	0	0	1	0	0	1	1	1	3	2	0	1	2	0	2	2	1	1	2	1	0	1

S7 **Excessive Sediment Loading *from Contributing Area***

In the last column, place an X next to any item present in the CA that is likely to have elevated the load of waterborne or windborne sediment reaching the AA **from its CA**.

erosion from plowed fields, fill, timber harvest, dirt roads, vegetation clearing, fires	x									x				x						x	x												x		
erosion from construction, in-channel machinery **in the CA**																																		x	
erosion from off-road vehicles in the CA	x	x																					x	x					x	x					
erosion from livestock or foot traffic in the CA	x																																		
stormwater or wastewater effluent	x	x		x		x		x	x	x	x															x	x	x	X			x			x
sediment from gravel mining, other mining, oil/ gas extraction																																			
accelerated channel downcutting or headcutting of tributaries due to altered land use																																			
other human-related disturbances within the CA	x																																x		
natural processes within the CA, e.g., streambank erosion, landslides, erosion of erosion-prone soils especially following fire, floods						x											x																x		x

If any items were checked above, then for each row of the table below assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in increasing the amount or transport of sediment into the AA. To estimate that, contrast it with the condition if checked items never occurred or were no longer present.

	Severe (3 pts)	Medium (2 pts)	Mild (1 pt)																																
Erosion in CA	extensive evidence, high intensity*	potentially (based on high-intensity* land use) or scattered evidence	potentially (based on low-intensity* land use) with little or no direct evidence	0	1	0	1	0	1	0	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	2	1	1	1	1	1	1	1	1	2	1
Recentness of significant soil disturbance in the CA	current & ongoing	1-12 months ago	>1 yr ago	0	1	0	3	0	2	0	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	3	1	1	0	1	1	1	3	1	1	1	1
Duration of sediment inputs to the AA	frequent and year-round	frequent but mostly seasonal	infrequent & during high runoff events mainly	0	1	0	2	0	2	0	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	2	2	1	1	1	1	1	1	1	1	1	1
AA proximity to actual or potential sources	0-50 ft, or farther but on steep erodible slopes	50-300 ft	in other part of contributing area	0	1	0	2	0	2	0	1	2	2	2	0	0	1	0	0	2	0	0	2	2	0	2	2	2	1	2	3	1	1	1	1	2	2
* **high**-intensity= plowing, grading, excavation, erosion with or without veg removal; **low**-intensity= veg removal only with little or no apparent erosion			sum=	0	4	0	8	0	7	0	4	5	5	5	0	0	4	0	0	5	0	0	5	5	0	9	6	5	3	5	6	4	6	4	4	6	5
0 if Sum= 0, (**1** pt) if Sum= 1-4. (**2** pt) if 5-6. (**3** pt) if 7-8. (**4** pt) if 9-10. (**5** pt) if >10.			final score=	0	3	0	4	0	3	0	2	2	2	2	0	0	2	0	0	2	0	0	2	2	0	5	3	2	1	3	3	2	4	2	1	3	2

Field S Data Form	Wetland Group	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
		'x' indicates that the condition was deemed satisfied; or activity is or was present																																	
S8	**Soil or Sediment Alteration *Within the Assessment Area***																																		
	In the last column, place an X next to any item present in the AA that is likely to have compacted, eroded, or otherwise altered the AA's soil																																		
	compaction from machinery, off-road vehicles, or mountain bikes, especially during wetter periods				x								x				x					x		x	x					x	x				
	leveling or other grading not to the natural contour																					x													
	tillage, plowing (but excluding disking for enhancement of native plants)																					x													
	fill or riprap, excluding small amounts of upland soils containing organic amendments (compost, etc.) or small amounts of topsoil imported from another wetland																									x									
	livestock and other sediment- or soil-disturbing animals, e.g., carp, nutria, wild boar, people on foot																																		
	excavation																					x													
	dredging in or adjacent to the AA																																		
	boat traffic in or adjacent to the AA and sufficient to cause shore erosion or stir bottom sediments																																		
	artificial water level or flow manipulations sufficient to cause erosion or stir bottom sediments																					x													
	natural processes within the AA, e.g., trampling by concentrated wildlife, shore or streambank erosion, landslides, normal erosion of erosion-prone soils especially following fire, floods.					x	x							x				x																	x
	If any items were checked above, then for each row of the table below assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in altering the AA's soils. To estimate that, contrast it with the soil condition if checked items never occurred or were no longer present.																																		
		Severe (3 pts)	Medium (2 pts)	Mild (1 pt)																															
	Spatial extent of altered soil	>95% of AA or >95% of its upland edge (if any)	5-95% of AA or 5-95% of its upland edge (if any)	<5% of AA and <5% of its upland edge (if any)	0	0	0	1	1	1	0	0	0	0	0	2	2	0	0	1	2	0	0	0	2	0	2	1	1	0	0	0	1	1	0	0	0	1
	Recentness of significant soil alteration in AA	current & ongoing	1-12 months ago	>1 yr ago	0	0	0	1	3	2	0	0	0	0	0	1	3	0	0	1	3	0	0	0	1	0	3	1	1	0	0	0	1	3	0	0	0	1
	Duration	long-lasting, minimal veg recovery	long-lasting but mostly revegetated	short-term, revegetated, not intense	0	0	0	1	1	1	0	0	0	0	0	3	3	0	0	1	3	0	0	0	2	0	3	1	3	0	0	0	1	1	0	0	0	1
	Timing of soil alteration	frequent and year-round	frequent but mostly seasonal	infrequent & mainly during scattered events	0	0	0	1	1	1	0	0	0	0	0	1	2	0	0	1	1	0	0	0	2	0	2	1	1	0	0	0	1	1	0	0	0	1
				sum=	0	0	0	4	6	5	0	0	0	0	0	7	10	0	0	4	9	0	0	0	7	0	10	4	6	0	0	0	4	6	0	0	0	4
	0 if Sum= 0, (**1** pt) if Sum= 1-4. (**2** pt) if 5-6. (**3** pt) if 7-8. (**4** pt) if 9-10. (**5** pt) if >10.			final score=	0	0	0	1	2	2	0	0	0	0	0	3	4	0	0	1	4	0	0	0	3	0	4	1	2	0	0	0	1	2	0	0	0	1
S9	**Vegetated Cover Removal Within the Assessment Area**																																		
	In the last column, place an X next to any item present in the AA that is likely to have caused less canopy or ground cover, or less vegetation biomass, or less wood generally. If only the species composition (not total cover or biomass) changed, do not check any of these items.																																		
	clearing, logging, excepting removal of woody vegetation from native prairies				x							x	x				x	x			x	x							x						
	grazing by livestock																																		
	mowing											x										x													
	herbicides, excepting spot applications for controlling non-native plants in the AA											x																							
	plowing, regrading																																		
	removal of woody debris																																		
	shading from large artificial structure, e.g., bridge, boardwalk, dock																																		
	other human-related disturbances within the AA																									x									
	natural processes concentrated within the AA, e.g., wind & wave scouring, windthrow, insect or disease infestations, fires, beaver damage, natural erosion, intensive grazing by deer, elk, geese.													x				x						x											
	If any items were checked above, then for each row of the table below assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items on the amount of vegetation cover in the AA.																																		
		Severe (3 pts)	Medium (2 pts)	Mild (1 pt)																															
	Spatial extent of veg removal	>95% of AA or >95% of its water edge	5-95% of AA or 5-95% of its water edge	<5% of AA and <5% of its water edge if any	0	0	0	1	0	0	0	0	0	0	2	1	2	0	0	2	2	0	0	2	2	1	0	0	1	0	0	1	0	0	0	0	0	0
	Frequency of significant veg removal	regularly during most of the year	a few times a year	annual or less	0	0	0	1	0	0	0	0	0	0	1	1	2	0	0	1	1	0	0	1	2	2	0	0	3	0	0	1	0	0	0	0	0	0
	Biomass recovery after each removal	> 20 yrs	2-20 yrs	<2 yrs	0	0	0	2	0	0	0	0	0	0	2	2	2	0	0	2	2	0	0	2	2	1	0	0	2	0	0	1	0	0	0	0	0	0
				sum=	0	0	0	4	0	0	0	0	0	0	5	4	6	0	0	5	5	0	0	5	6	4	0	0	6	0	0	3	0	0	0	0	0	0
	0 if Sum= 0, (**1** pt) if Sum= 1-3. (**2** pt) if 4-5. (**3** pt) if 6-7. (**4** pt) if 8. (**5** pt) if 9.			final score=	0	0	0	2	0	0	0	0	0	0	2	2	3	0	0	2	2	0	0	2	3	2	0	0	3	0	0	1	0	0	0	0	0	0

Oregon
John A. Kitzhaber, MD, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
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June 21, 2012

Sandra Belson
Community Development Director
City of Florence
250 Highway 101
Florence, OR 97439

Re: Approval of Significance Criteria for Identifying Locally Significant Wetlands

Dear Ms. Belson:

In a letter dated March 29, 2010, the Department of State Lands (DSL) granted permission to the City of Florence to use the *Oregon Rapid Wetland Assessment Protocol* (ORWAP) to assess wetlands as part of the Siuslaw Estuary Partnership project, as allowed by Oregon administrative rules governing Local Wetlands Inventories (141-086-0185) for your Local Wetlands Inventory and Goal 5/Goal 17 planning.

ORWAP has not yet been incorporated into the administrative rules for identifying Locally Significant Wetlands (OAR 141-86-300 through 350). Because Florence piloted the use of ORWAP for this purpose before administrative rule changes were made, you have worked closely with DSL's wetlands planning staff and stakeholders of the Siuslaw Estuary Partnership project to develop significance criteria based upon the ORWAP results.

In lieu of the administrative rules for identifying Locally Significant Wetlands (OAR 141-86-300 through 350), the criteria that will be used for determining significance of non-Goal 17 wetlands in the Florence urban growth boundary (UGB), as outlined in the April 30, 2012 Siuslaw Estuary Partnership document entitled "Proposed Florence Wetlands Significance Criteria and Protection Measures" (enclosed), are wetlands that score at or above the 75th percentile in either Function or Value for one or more of the following Grouped Functions, as defined in the Oregon Rapid Wetlands Assessment Protocol (ORWAP):

a. Hydrologic Control (water storage and delay or "flood control"); or
b. Water Quality (sediment retention and stabilization, phosphorus retention, nitrate removal and retention, and thermoregulation); or
c. Habitat for fish, aquatic, or terrestrial species.

By way of this letter, DSL grants approval of the aforementioned criteria for determining locally significant wetlands for your Goal 5 planning. We appreciate your interest in using ORWAP for your project. This effort has been very informative for DSL's work on future rule revisions.

Sincerely,

Louise Solliday

Louise Solliday
Director

cc: Amanda Punton, DLCD
Dave Perry, DLCD, Newport Office
Peter Ryan, DSL

Siuslaw Estuary Partnership

An Integrated Multiple Objective Approach To Watershed Protection and Restoration

Proposed Florence Wetlands Significance Criteria and Protection Measures April 30, 2012

The Wetlands and Riparian Area Team met on March 6, 2012 and concurred with this proposal for determining the significance of, and measures to protect, wetlands in the Florence urban growth boundary (UGB). The Stakeholder Groups forwarded this proposal to the public for comment at their meetings in March and April. Then, the public provided comment on the proposal at the April 30, 2012 Open House.

In this paper, the significance criteria are applied to the wetlands and assessment, using the Oregon Rapid Wetland Assessment Protocol (ORWAP) in the 2010 Draft Florence Area Wetland and Riparian Inventory (Draft Inventory), prepared by Pacific Habitat Services for the Siuslaw Estuary Partnership (Partnership). The application of the significance criteria in this paper is based on the Draft Inventory; thus, the findings are subject to change based on the results of the Department of State Lands' (DSL) review. Any modifications made to the inventory or assessment as a result of DSL's review will be incorporated into the final analysis of wetlands and their significance.

Scope and Study Area

Statewide Planning Goal 5 criteria and protection measures apply to non-Statewide Planning Goal 17 wetlands in the Florence Area Inventory within the Florence Urban Growth Boundary (UGB) which is where Florence's land use measures would apply.[1]

The 2010 Florence Area Wetlands Inventory, once approved by DSL, will replace the 1996 Florence Wetlands Inventory in the State Wetland Inventory (SWI), both within and outside the UGB.[2] In addition, if Lane County elects to determine significance of non-Goal 17 wetlands outside the UGB, the criteria ultimately selected for the Florence UGB may help guide that effort. At their meeting on March 22, the Elected Official Stakeholders will be asked to provide guidance on the question of whether or not to apply Goal 5 protection measures to wetlands outside the UGB.

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[1] **OAR 660-023-0240. Relationship of Goal 5 to Other Goals**
"(2) The requirements of Goals 15, 16, 17, and 19 shall supersede requirements of this division for natural resources that are also subject to and regulated under one or more of those goals. However, local governments may rely on a Goal 5 inventory produced under OAR 660-023-0030 and other applicable inventory requirements of this division to satisfy the inventory requirements under Goal 17 for resource sites subject to Goal 17."

2 In accordance with OAR 141-086-0185, "once approved by the Department of State Lands (DSL), the Local Wetland Inventory (LWI) must be used in place of the National Wetlands Inventory (NWI) and is incorporated into the "State Wetland Inventory" (SWI). The SWI is an inventory which contains the location, wetlands types, and approximate boundaries of wetlands in the State of Oregon. This inventory is continually revised as additional information is received or obtained by the Division of State Lands. The approved LWI must be used by cities and counties in lieu of the NWI for notifying the Department of land use applications affecting mapped wetlands and other waters (ORS 215.418 and 227.350).

Significance

1. The criterion for determining significance of non-Goal 17 wetlands in the Florence urban growth boundary (UGB) is wetlands that score at or above the 75th percentile in either Function or Value for one or more of the following Grouped Functions, as defined in the Oregon Rapid Wetlands Assessment Protocol (ORWAP):

    a. Hydrologic Control (water storage and delay or "flood control"); or
    b. Water Quality (sediment retention and stabilization, phosphorus retention, nitrate removal and retention, and thermoregulation); or
    c. Habitat for fish, aquatic, or terrestrial species.

2. The results of the analysis are presented in Table 1, ORWAP Summary for Florence LWI Functions and Values of Grouped Functions, attached. In applying the significance criterion to the Draft Florence Area Inventory, the sixteen non-Goal 17 wetlands in the Florence UGB are significant, as shown in Table 1. This is almost exclusively due to their high Function or Value in providing flood control and water quality protection. All of the wetlands, except Wetland 25, meet the criteria for Hydrologic Control or Water Quality; and Wetland 25 meets the criteria for Aquatic Habitat and is also at the head of a significant riparian corridor. In addition, all of the wetlands except 8, 26, and 34 meet the criteria for providing habitat for fish, aquatic, and/or terrestrial species.

Protection

1. The proposed protection measures are to:

    a. apply the Safe Harbor approach in Statewide Planning Goal 5, attached, to protect significant wetlands in the UGB;
    b. include a Variance procedure that recognizes the rights of a property owner to develop property that would otherwise be unbuildable (avoids unconstitutional "taking" of private property without just compensation); and
    c. Use the ESEE (Economic, Social, Environmental, and Energy) Analysis prescribed in Statewide Planning Goal 5 to address conflicts between construction of planned infrastructure projects and resource conservation in the Florence UGB. The ESEE analysis for public utilities and transportation facilities will evaluate these conflicts within the urban growth boundary and propose the appropriate level of resource protection in these areas. Note: The Goal 5 Administrative Rules for ESEE Analysis are attached.

Analysis

1. The proposed approach to determining significance for the Florence Area Inventory bases significance on the ORWAP scores separately for relative effectiveness of the Function and Value of the wetland. The proposed criteria do not require high scores in both the Functions and Values.

Grouped Functions in ORWAP	
Grouped Functions	**Component Functions**
Hydrologic Function	Water Storage and Delay (WS)
Water Quality Support Group	Sediment Retention and Stabilization (SR) Phosphorus Retention (PR)

Grouped Functions in ORWAP	
Grouped Functions	**Component Functions**
	Nitrate Removal & Retention (NR) Thermoregulation (T)
Fish Support Group	Anadromous Fish Habitat (FA) Non-anadromous Fish Habitat (FR)
Aquatic Habitat Support Group	Organic Matter Export (OE) Aquatic Invertebrate Habitat (INV) Amphibian and Reptile Habitat (AM) Waterbird Feeding Habitat (WBF) Waterbird Nesting Habitat (WBN)
Terrestrial Habitat Support Group	Songbird, Raptor, and Mammal Habitat (SBM) Pollinator Habitat (POL) Native Plant Diversity (PD)

The Florence Wetlands Project is a pilot and, as such, is one of the first attempts to use the ORWAP method for planning purposes. The Wetlands and Riparian Area Protection Team worked together to come to a mutual understanding of how best to use the ORWAP tool and to agree to criterion for significance that makes sense in a planning context.

2. The "service area" for the Florence Comprehensive Plan is the urban growth boundary (UGB). Flood control and water quality are critical issues for the North Florence Dunal Aquifer, both inside and outside the City limits. Wetlands that provide flood control or water quality protection, today or in the future, are of critical importance in providing these two services. For this reason, the proposed criteria take both the Function and the Value of the wetlands into consideration in determining significance.

3. The proposed significance criteria recognize the critical role that wetlands play in controlling floods and protecting water quality in the North Florence Sole Source Dunal Aquifer. All wetlands in the UGB play a role, or will play a role in the future, in Hydrologic Control and/or Water Quality Protection. All but one of the "significant" wetlands meet the criteria for these functions or values, and are thus recommended for protection. The proposed criteria also recognize the importance of wetlands for providing Habitat for fish, aquatic, and terrestrial species. All of the wetlands except 8, 26, and 34 meet the criteria for providing habitat for fish, aquatic, and/or terrestrial species.

4. For wetland protection measures, the proposal is to apply the Safe Harbor approach in Statewide Planning Goal 5, including the Variance procedure, to protect locally significant wetlands in the UGB, and exempt planned infrastructure and public improvement projects using the ESEE Analysis approach in Goal 5. This would mean that the significant wetlands would be protected, with a Variance procedure available that recognizes the rights of a property owner to develop property (avoids unconstitutional "taking" of private property without just compensation); and that planned public improvements can be constructed as long as the needed state and federal permits are obtained.

   The proposed protection measures combine the approaches available under State law, i.e., safe harbor and ESEE analysis, in a manner that ensures all properties

will retain some development potential while at the same time allowing planned infrastructure and public improvement projects to proceed as planned. The ESEE analysis is a tool that can be used to ensure that planned infrastructure and public improvements, such as roads, stormwater systems, wastewater systems, and parks, can be constructed as planned, without being subject to the variance process, although any such development will nevertheless be subject to any required state and federal permit processes.

Table 1. Significant Florence Wetlands and ORWAP Scores for Functions (F) and Values (V)

Wetland #	Hydrologic Control		Water Quality		Fish Habitat		Aquatic Habitat		Terrestrial Habitat		Notes and Significance			
	F	V	F	V	F	V	F	V	F	V	Outside UGB	Goal 17	In City Limits	Significant?
1	5.75	3.67	10	7.19	5.87	10	4.88	6.67	5.94	6.67	Part Out		In part	yes
2	3.5	3.08	10	6.07	3.69	4.2	6.37	7.33	6.63	6.67			Outside	yes
3	7	4.72	10	6.19	2.16	6.67	6.89	6.67	6.55	6.67	Outside			
4	2.31	7.64	6.17	7.5	6.56	10	6.11	10	7.61	7.51	Part Out		In part	yes
5	3.09	7.22	7.39	7.5	7.89	10	6.52	7.33	8.79	10	Part Out	Outside UGB=G17	In part	yes
6	1.77	2.17	4.84	7.5	6.95	10	7.39	7.33	7.51	7.43			Mostly in	yes
7	6.0	3.17	10	6.03	2.21	6.67	6.41	7.33	5.23	6.67			Outside	yes
8	3.5	3.08	10	6.03	0.67	6.67	6.72	6.67	5.99	6.67			In	yes
9	3.46	2.17	7.37	5.28	2.3	6.67	7.12	4.0	7.9	6.67	Outside			
10	4.5	2.17	10	5.43	3.69	6.67	7.87	4.0	7.39	6.67	Outside			
11	2.45	6.39	6.2	4.34	3.01	6.67	8.31	5.67	9.01	7.68			Outside	yes
12	3.25	2.17	10	4.94	3.33	6.67	8.39	7.33	7.76	7.77	Part Out		Mostly Outside	yes
13	5.75	2.17	10	5.82	2.32	6.67	7.01	6.67	5.9	6.67	Outside			
14	4.25	2.17	10	5.07	3.52	6.67	8.04	6.67	6.94	6.67	Outside			
15	2.63	2.33	5.09	6.67	6.68	10	7.14	6.67	7.84	6.67	Outside			
16	3.25	2.17	10	5.07	0.74	6.67	7.67	7.33	6.68	6.7	Outside			
17	3.25	2.17	10	5.57	2.05	6.67	7.87	7.33	7.09	6.99	Outside			
18	3.85	2.33	6.46	5.78	1.59	6.67	6.92	7.33	7.71	6.67	Outside			
19	3.25	2.17	10	5.36	2.64	5.11	7.31	6.67	6.53	6.67	Outside			
20	3.25	2.17	10	5.36	0.83	6.67	7.34	7.33	6.06	6.67	Outside			
21	4.5	3.58	10	6.49	2.95	6.67	7.84	7.33	6.99	7.22	Outside			
22	3.13	2.67	4.21	6.67	7.06	10	6.97	6.67	6.34	6.67	Outside	G17		
23	4.5	2.17	10	5.45	4.26	5.47	8.28	7.33	6.72	7.21	Outside			
24	5.75	2.17	10	5.61	3.54	6.67	7.82	7.33	7.08	7.09	Part Out	Part G17	Outside	yes
25	3	2.17	5.52	5.28	2.59	5.41	7.23	7.33	5.83	6.7	Part Out		Outside	yes
26	3.25	2.42	10	5.57	2.89	6.67	5.98	6.67	5.95	6.67			Outside	yes
27	3.5	2.67	10	6.28	3.22	4.73	6.78	7.33	5.35	6.67	Part Out		Outside	yes
28	2.25	2.17	10	5.28	3.9	6.67	6.38	7.33	5.85	6.67			Outside	yes
29	4.5	2.17	10	5.36	3.33	6.67	6.41	7.33	5.43	6.67		G17		
30	3.5	1.67	10	5.11	3.97	6.67	7.42	7.33	6.16	6.67		G17		
31	2.71	2.92	6.17	7.5	7.93	10	5.89	7.33	6.3	7.03		G17		
32	2.09	2.0	5.08	6.67	6.3	10	7.08	7.33	7.48	7.35	Outside	G17		
33	4.5	1.67	10	4.77	1.22	7.13	7.36	7.33	7.09	6.97			Inside	yes
34	1.64	1.67	5.03	6.64	2.57	6.67	6.06	6.67	4.66	6.67		Part G17	Inside	yes
Mean	3.58	2.87	8.52	5.92	3.66	7.22	7.05	6.97	6.71	6.97				
Median	3.36	2.17	10.00	5.70	3.28	6.67	7.10	7.33	6.66	6.67				
75%	**4.50**	**3.04**	**10.00**	**6.60**	**4.19**	**7.02**	**7.61**	**7.33**	**7.46**	**7.08**	**Significance Threshold**			

GOAL 5 ADMINISTRATIVE RULES: WETLANDS

OAR 660-023-0100
Wetlands

(1) For purposes of this rule, a "wetland" is an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(2) Local governments shall amend acknowledged plans and land use regulations prior to or at periodic review to address the requirements of this division, as set out in OAR 660-023-0250(5) through (7). The standard inventory process requirements in OAR 660-023-0030 do not apply to wetlands. Instead, local governments shall follow the requirements of section (3) of this rule in order to inventory and determine significant wetlands.

(3) For areas inside urban growth boundaries (UGBs) and urban unincorporated communities (UUCs), local governments shall:

> (a) Conduct a local wetlands inventory (LWI) using the standards and procedures of OAR 141-086-0110 through 141-086-0240 and adopt the LWI as part of the comprehensive plan or as a land use regulation; and
> (b) Determine which wetlands on the LWI are "significant wetlands" using the criteria adopted by the Division of State Lands (DSL) pursuant to ORS 197.279(3)(b) and adopt the list of significant wetlands as part of the comprehensive plan or as a land use regulation.

(4) For significant wetlands inside UGBs and UUCs, a local government shall:

> (a) Complete the Goal 5 process and adopt a program to achieve the goal following the require-ments of OAR 660-023-0040 and 660-023-0050; or
> (b) Adopt a safe harbor ordinance to protect significant wetlands consistent with this subsection, as follows:
>
> > (A) The protection ordinance shall place restrictions on grading, excavation, placement of fill, and vegetation removal other than perimeter mowing and other cutting necessary for hazard prevention; and
> > (B) The ordinance shall include a variance procedure to consider hardship variances, claims of map error verified by DSL, and reduction or removal of the restrictions under paragraph (A) of this subsection for any lands demonstrated to have been rendered not buildable by application of the ordinance.

(5) For areas outside UGBs and UUCs, local governments shall either adopt the statewide wetland inventory (SWI; see ORS 196.674) as part of the local comprehensive plan or as a land use regulation, or shall use a current version for the purpose of section (7) of this rule.

(6) For areas outside UGBs and UUCs, local governments are not required to amend acknowledged plans and land use regulations in order to determine significant wetlands and complete the Goal 5 process. Local governments that choose to amend acknowledged plans for areas outside UGBs and UUCs in order to inventory and protect significant wetlands shall follow the requirements of sections (3) and (4) of this rule.

(7) All local governments shall adopt land use regulations that require notification of DSL concerning applications for development permits or other land use decisions affecting

wetlands on the inventory, as per ORS 227 .350 and 215.418, or on the SWI as provided in section (5) of this rule.

(8) All jurisdictions may inventory and protect wetlands under the procedures and requirements for wetland conservation plans adopted pursuant to ORS 196.668 et seq. A wetlands conservation plan approved by the director of DSL shall be deemed to comply with Goal 5 (ORS 197.279(1)).

Stat. Auth.: ORS 183 & ORS 197
Stats. Implemented: ORS 197.040 & ORS 197.225 - ORS 197.245
Hist.: LCDC 2-1996, f. 8-30-96, cert. ef. 9-1-96

GOAL 5 ADMINISTRATIVE RULES: ESEE ANALYSIS

OAR 660-023-0010
Definitions

(2) "ESEE consequences" are the positive and negative economic, social, nvironmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use.

(7) "Protect," when applied to an individual resource site, means to limit or prohibit uses that conflict with a significant resource site (except as provided in OAR 660-023-0140, 660-023-0180, and 660-023-0190). When applied to a resource category, "protect" means to develop a program consistent with this division.

660-023-0040
ESEE Decision Process

(1) Local governments shall develop a program to achieve Goal 5 for all significant resource sites based on an analysis of the economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use. This rule describes four steps to be followed in conducting an ESEE analysis, as set out in detail in sections (2) through (5) of this rule. Local governments are not required to follow these steps sequentially, and some steps anticipate a return to a previous step. However, findings shall demonstrate that requirements under each of the steps have been met, regardless of the sequence followed by the local government. The ESEE analysis need not be lengthy or complex, but should enable reviewers to gain a clear understanding of the conflicts and the consequences to be expected. The steps in the standard ESEE process are as follows:

(a) Identify conflicting uses;
(b) Determine the impact area;
(c) Analyze the ESEE consequences; and
(d) Develop a program to achieve Goal 5.

(2) Identify conflicting uses. Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, local governments shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Local governments are not required to consider allowed uses that would be unlikely to occur in the impact area because existing permanent uses occupy the site. The following shall also apply in the identification of conflicting uses:

(a) If no uses conflict with a significant resource site, acknowledged policies and land use regulations may be considered sufficient to protect the resource site. The determination that there are no conflicting uses must be based on the applicable zoning rather than ownership of the site. (Therefore, public ownership of a site does not by itself support a conclusion that there are no conflicting uses.)

(b) A local government may determine that one or more significant Goal 5 resource sites are conflicting uses with another significant resource site. The local government shall determine the level of protection for each significant site using the ESEE
process and/or the requirements in OAR 660-023-0090 through 660-023-0230 (see OAR 660-023-0020(1)).

(3) Determine the impact area. Local governments shall determine an impact area for each significant resource site. The impact area shall be drawn to include only the area in which allowed uses could adversely affect the identified resource. The impact area defines the geographic limits within which to conduct an ESEE analysis for the identified significant resource site.

(4) Analyze the ESEE consequences. Local governments shall analyze the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use. The analysis may address each of the identified conflicting uses, or it may address a group of similar conflicting uses. A local government may conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning. The local government may establish a matrix of commonly occurring conflicting uses and apply the matrix to particular resource sites in order to facilitate the analysis. A local government may conduct a single analysis for a site containing more than one significant Goal 5 resource. The ESEE analysis must consider any applicable statewide goal or acknowledged plan requirements, including the requirements of Goal 5. The analyses of the ESEE consequences shall be adopted either as part of the plan or as a land use regulation.

(5) Develop a program to achieve Goal 5. Local governments shall determine whether to allow, limit, or prohibit identified conflicting uses for significant resource sites. This decision shall be based upon and supported by the ESEE analysis. A decision to prohibit or limit conflicting uses protects a resource site. A decision to allow some or all conflicting uses for a particular site may also be consistent with Goal 5, provided it is supported by the ESEE analysis. One of the following determinations shall be reached with regard to conflicting uses for a significant resource site:

(a) A local government may decide that a significant resource site is of such importance compared to the conflicting uses, and the ESEE consequences of allowing the conflicting uses are so detrimental to the resource, that the conflicting uses should be
prohibited.

(b) A local government may decide that both the resource site and the conflicting uses are important compared to each other, and, based on the ESEE analysis, the conflicting uses should be allowed in a limited way that protects the resource site to a desired
extent.

(c) A local government may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demon-strate that the conflicting use is of sufficient importance relative to

the resource site, and must indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.

Stat. Auth.: ORS 183 & ORS 197
Stats. Implemented: ORS 197.040 & ORS 197.225 - ORS 197.245
Hist.: LCDC 2-1996, f. 8-30-96, cert. ef. 9-1-96

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 0

Date: 10/24/2010 **Investigators:** C. Lysdale

Dominant tree species: Sitka Spruce

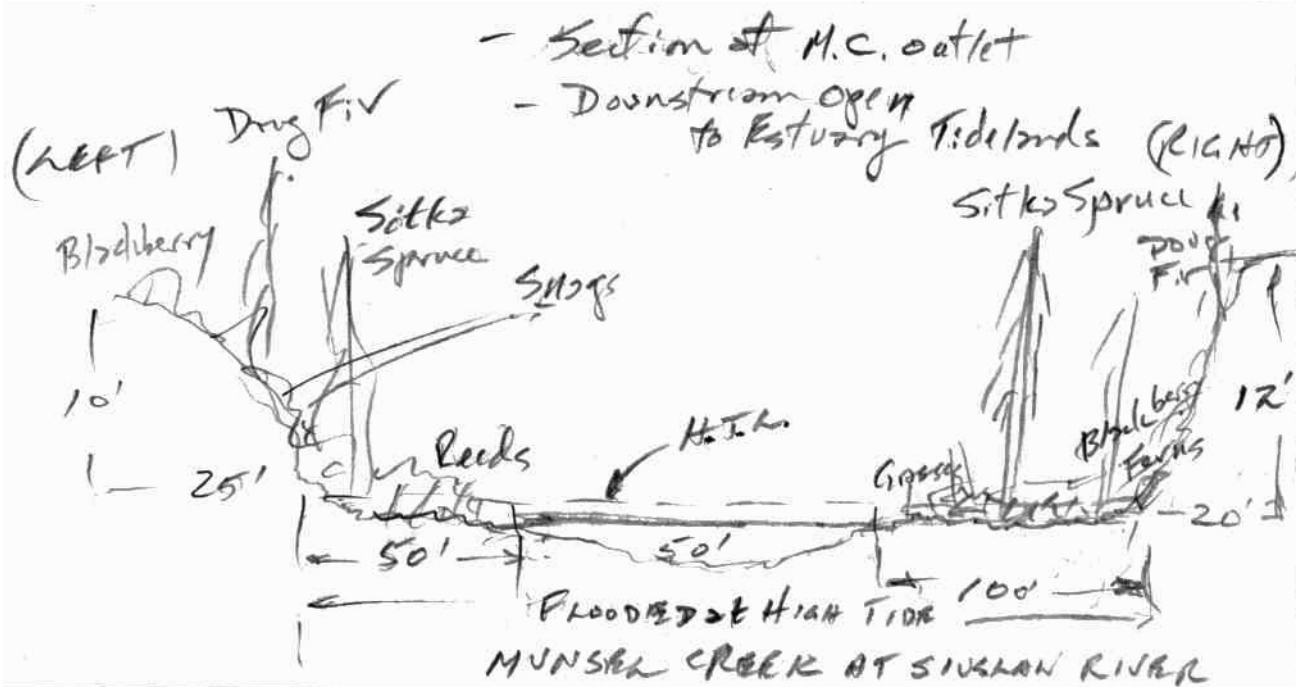
Potential tree height (PTH)/Actual Width of riparian area : 120/25L & 20R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-0Sveg, RMC-0Sstr, RMC-0Sstr1, RMC-0Sest

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-A	RMC - 0
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 50 Low, 200 High Tide	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☑ No ☐

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Sitka Spruce	Grasses
Douglas Fir	Reeds
	Bracken Fern
	Blackberry

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑

Outside HTL

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☑ No or no flood prone area present ☐

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 1 South

Date: 9/25/2010 **Investigators:** C. Lysdale & M. Tilton

Dominant tree species: Sitka Spruce

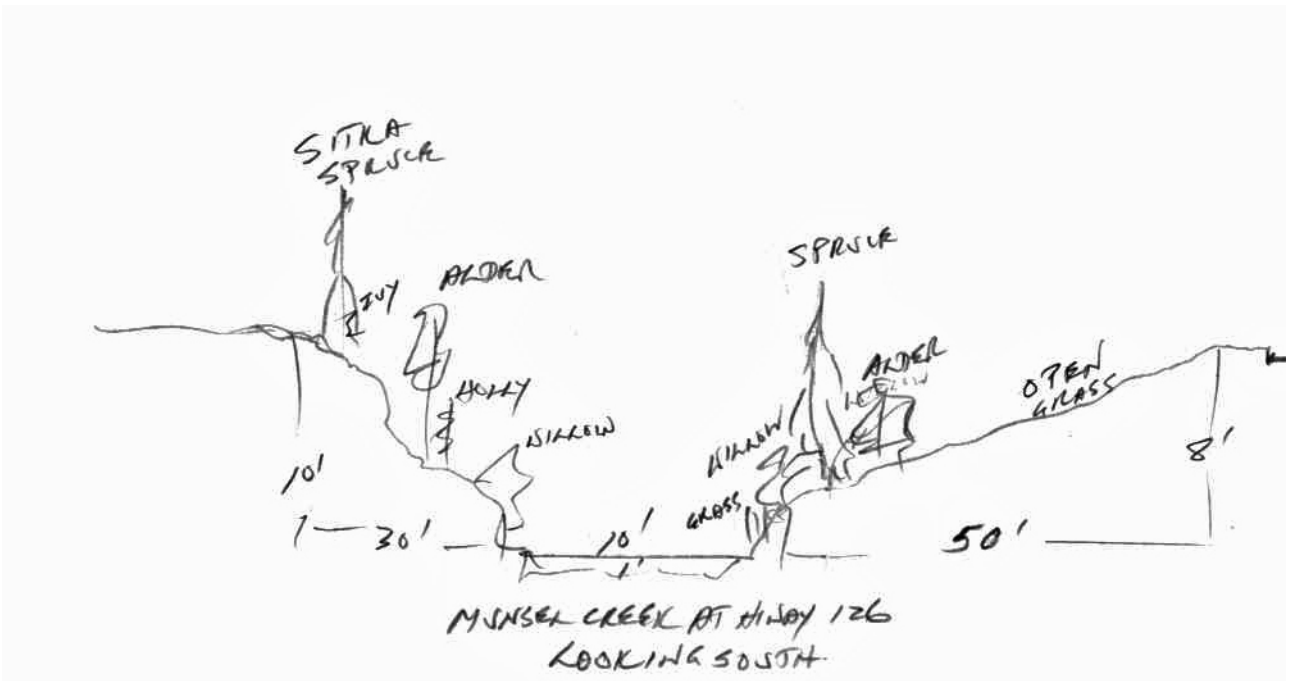
Potential tree height (PTH)/Actual Width of riparian area : 120/30L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-1S veg & RMC-1S str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 1 South	RMC - 1
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 10	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☑ No ☐

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☑	**Undeveloped:**	☐
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Sitka Spruce	Grasses
Red Alder	
Willow	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Right Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 1 North

Date: 9/25/2010 **Investigators:** C. Lysdale & M. Tilton

Dominant tree species: Douglas Fir

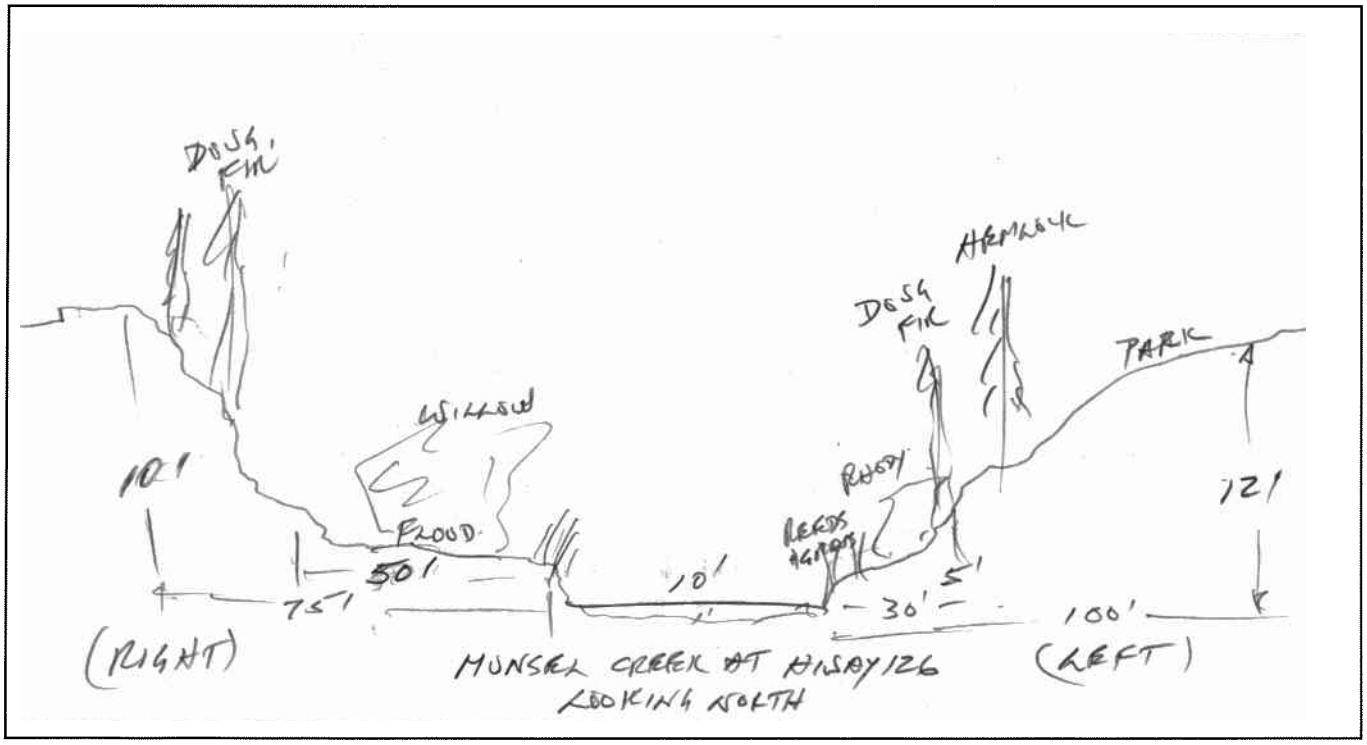
Potential tree height (PTH)/Actual Width of riparian area : 120/100L & 75R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-1N veg & RMC-1N str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 1 North	RMC - 1
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 10 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☑	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Western Hemlock	Reeds
Willow	
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☑ No or no flood prone area present ☐

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 2 South

Date: 9/9/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

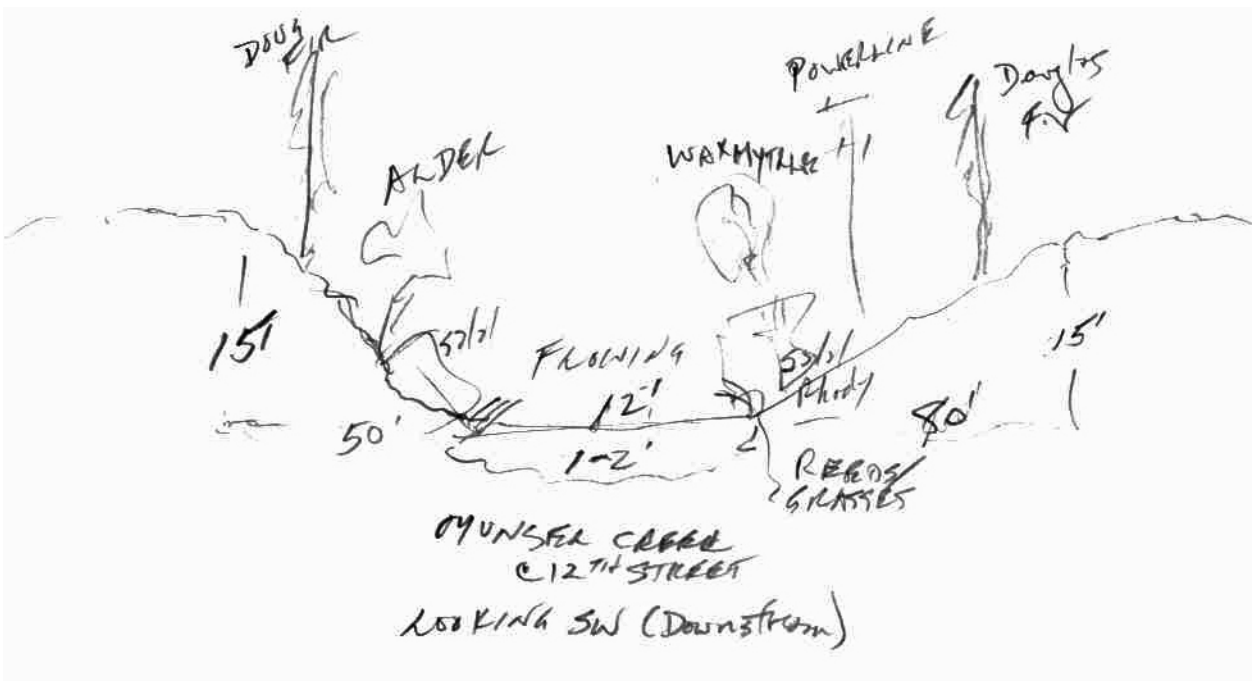
Potential tree height (PTH)/Actual Width of riparian area : 120/50L & 80R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-2S veg & RMC-2S str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 2 South	RMC - 2
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 12 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Red Alder	Reeds
California Wax Myrtle	
Rhododendron	
Salal	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Right >5:1 (20%) ☑ Left

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 2 North

Date: 9/9/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

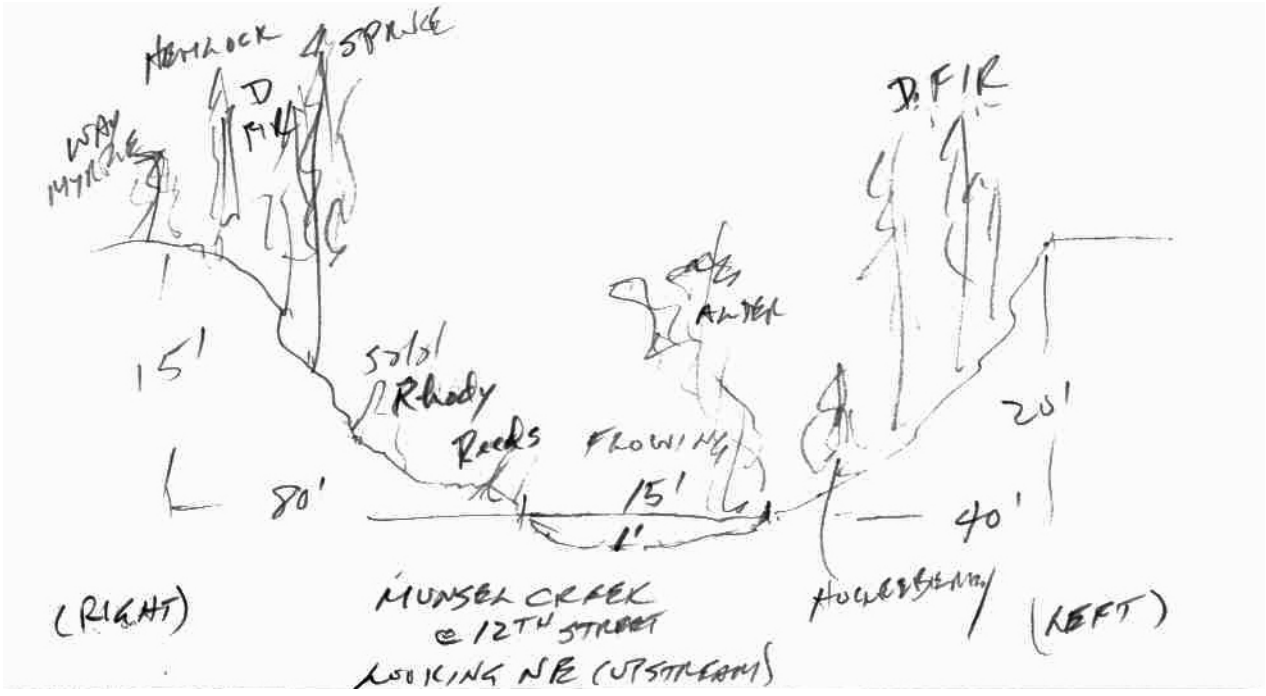
Potential tree height (PTH)/Actual Width of riparian area : 120/40L & 80R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-2N veg & RMC-2N str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 2 North	RMC - 2
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: **Stream/River:** ☑ **Width:** 15 feet
Lake/Pond: ☐ **Width:** feet
Wetland: ☐ **Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☐
Residential: ☑ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Western Hemlock	Reeds
Sitka Spruce	
California Wax Myrtle	
Red Alder	
Rhododendron	
Salal, Huckleberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Right >5:1 (20%) ☑ Left

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 3

Date: 9/9/2010 **Investigators:** C. Lysdale

Dominant tree species: Red Alder

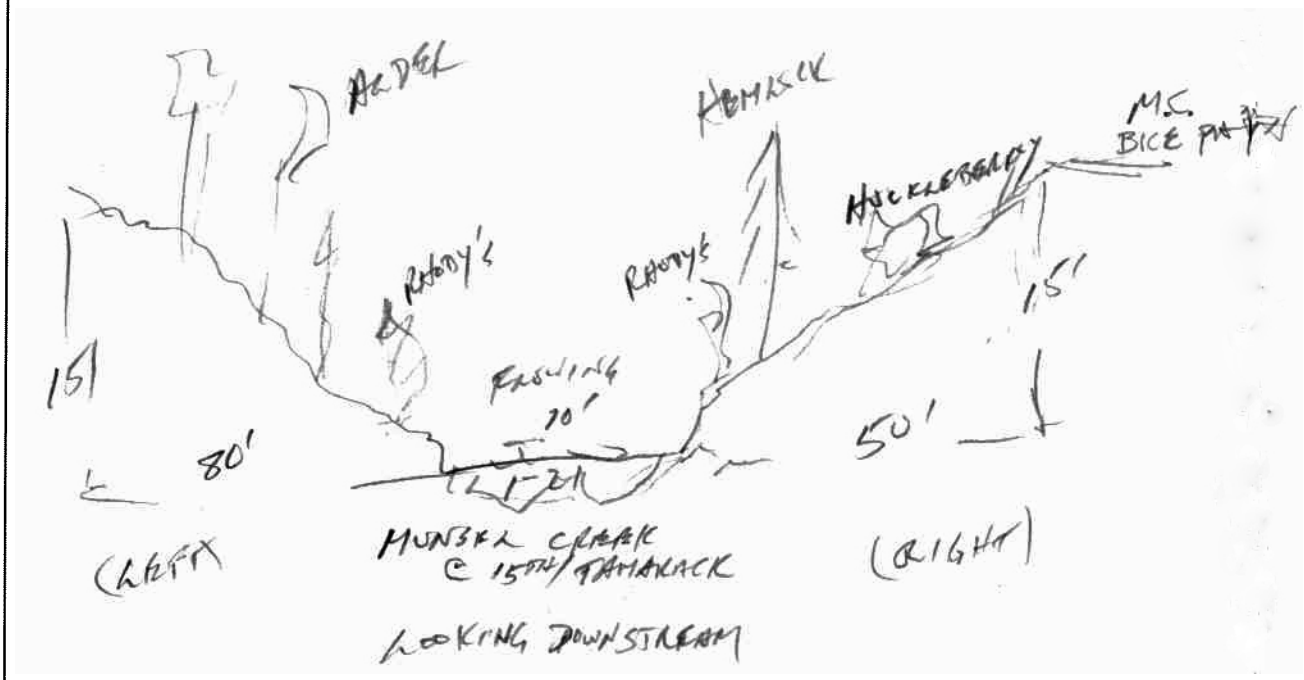
Potential tree height (PTH)/Actual Width of riparian area : 65/80L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-3veg & RMC-3str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 3	RMC - 3
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 10 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Western Hemlock	
Red Alder	
Huckleberry	
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 4

Date: 9/9/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

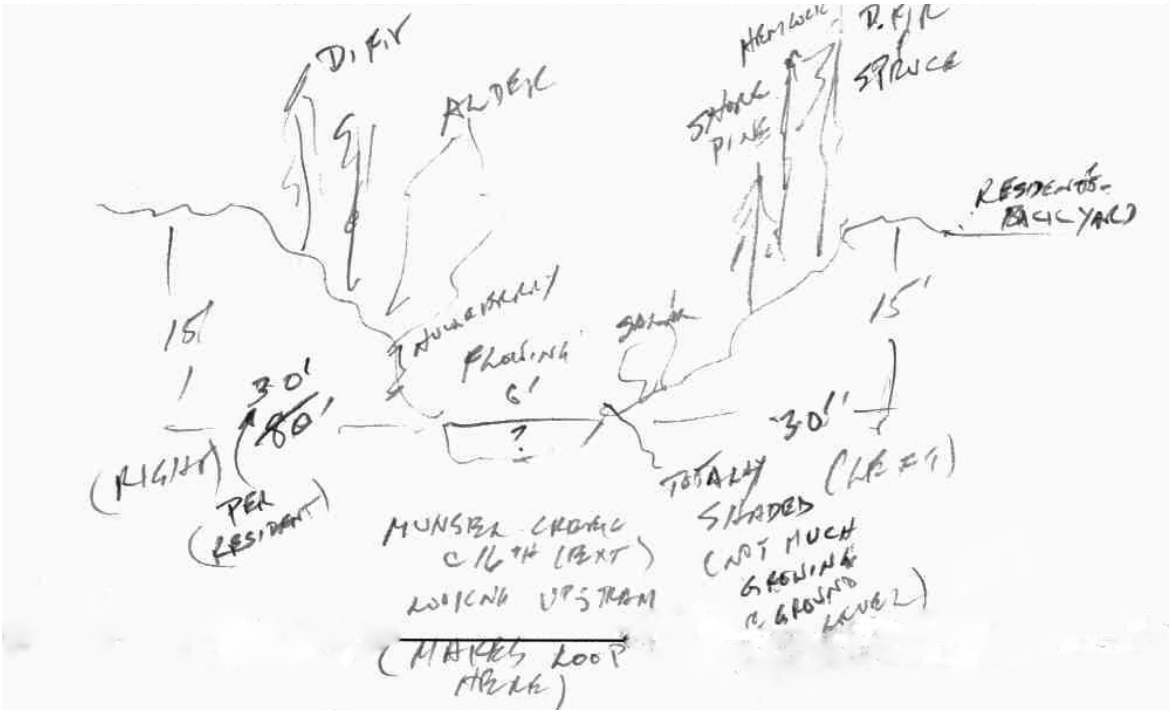
Potential tree height (PTH)/Actual Width of riparian area : 120/30L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-4veg & RMC-4str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 4	RMC - 4
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: **Stream/River:** ☑ **Width:** 6 feet
Lake/Pond: ☐ **Width:** feet
Wetland: ☐ **Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☐
Residential: ☑ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	
Western Hemlock	
Red Alder	
Shore Pine	
Salal	
Huckleberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)
<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)
<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)
Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)
Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)
Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)
Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)
>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)
<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)
low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)
Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?
Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?
More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 5 South

Date: 8/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

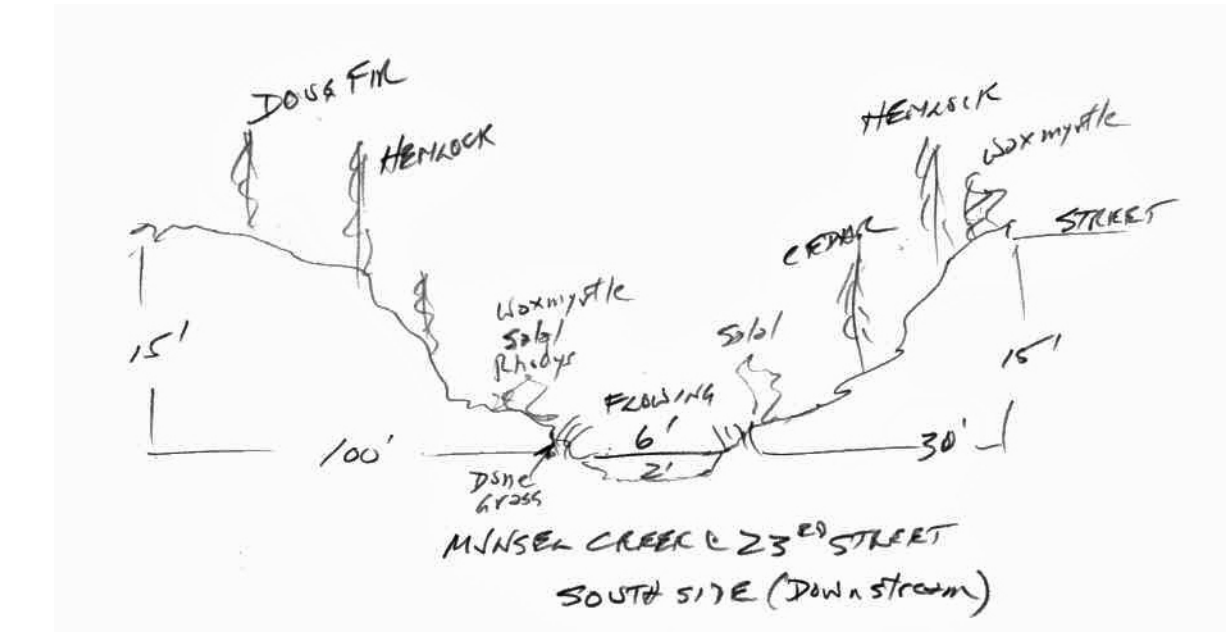
Potential tree height (PTH)/Actual Width of riparian area : 120/100L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-5S veg & RMC-5S str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 5 South	RMC - 5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 6 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☑
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Western Hemlock	
Rhododendron	
Salal	
Western Red Cedar	
California Wax Myrtle	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 5 North

Date: 8/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

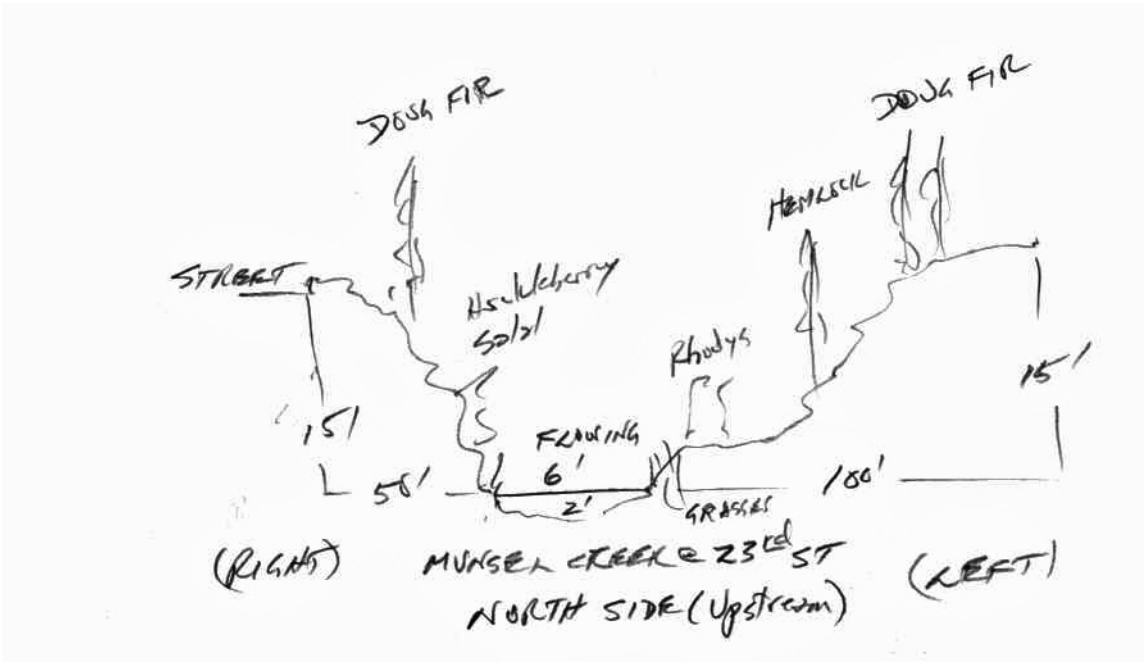
Potential tree height (PTH)/Actual Width of riparian area : 120/100L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-5N veg & RMC-5N str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 5 North	RMC - 5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 6 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☑
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Western Hemlock	
Rhododendron	
Salal	
Huckleberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 6

Date: 8/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir/Sitka Spruce

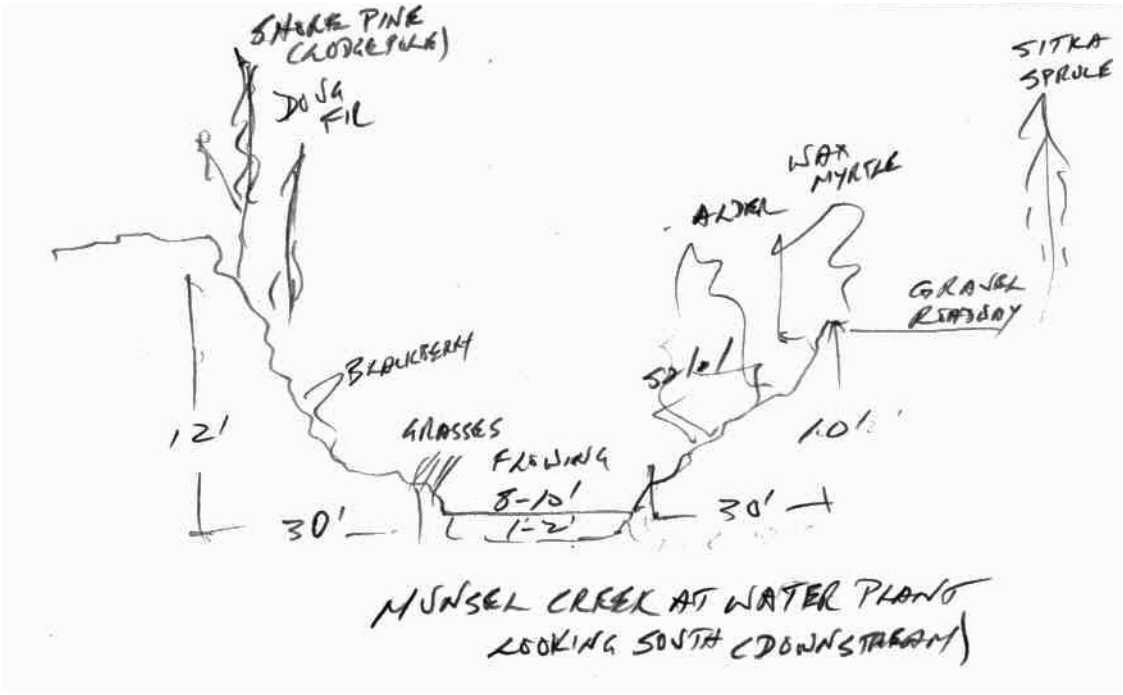
Potential tree height (PTH)/Actual Width of riparian area : 120/30L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Creek emerges from long culvert at this location (no upstream view).

Photos RMC-6veg & RMC-6str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 6	RMC - 6
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 8 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☑
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Sitka Spruce	
Red Alder	
Shore Pine	
California Wax Myrtle	
Salal, Huckleberry	
Blackberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 6.3

Date: 9/26/2010 **Investigators:** C. Lysdale

Dominant tree species: Western Red Cedar

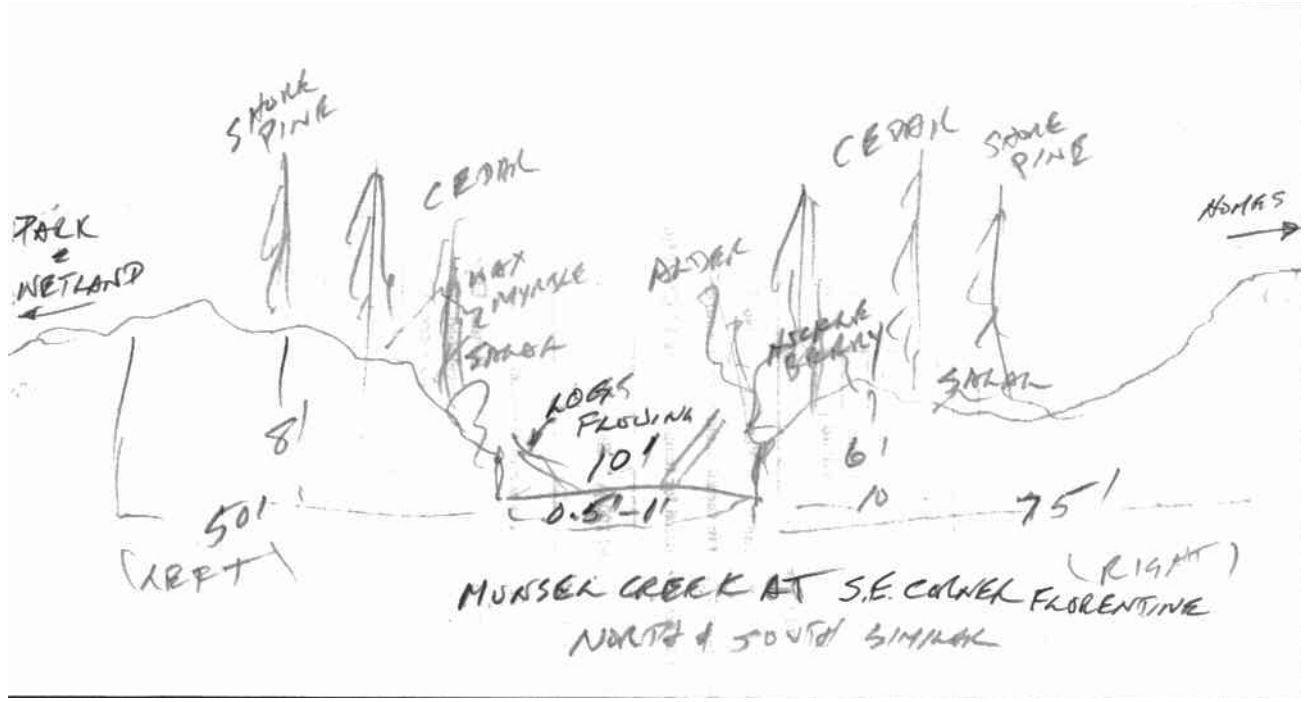
Potential tree height (PTH)/Actual Width of riparian area : 120/50L & 75R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-6.3Sveg, RMC-6.3Sstr ; RMC-6.3Nveg, RMC-6.3Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-6.3 South & North	RMC - 6.3
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 10	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Western Red Cedar	Salal
Lodgepole Pine	Huckleberry
Red Alder	
California Wax Myrtle	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑ (Shaded by canopy)

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 6.5

Date: 10/28/2010 **Investigators:** C. Lysdale

Dominant tree species: Red Alder

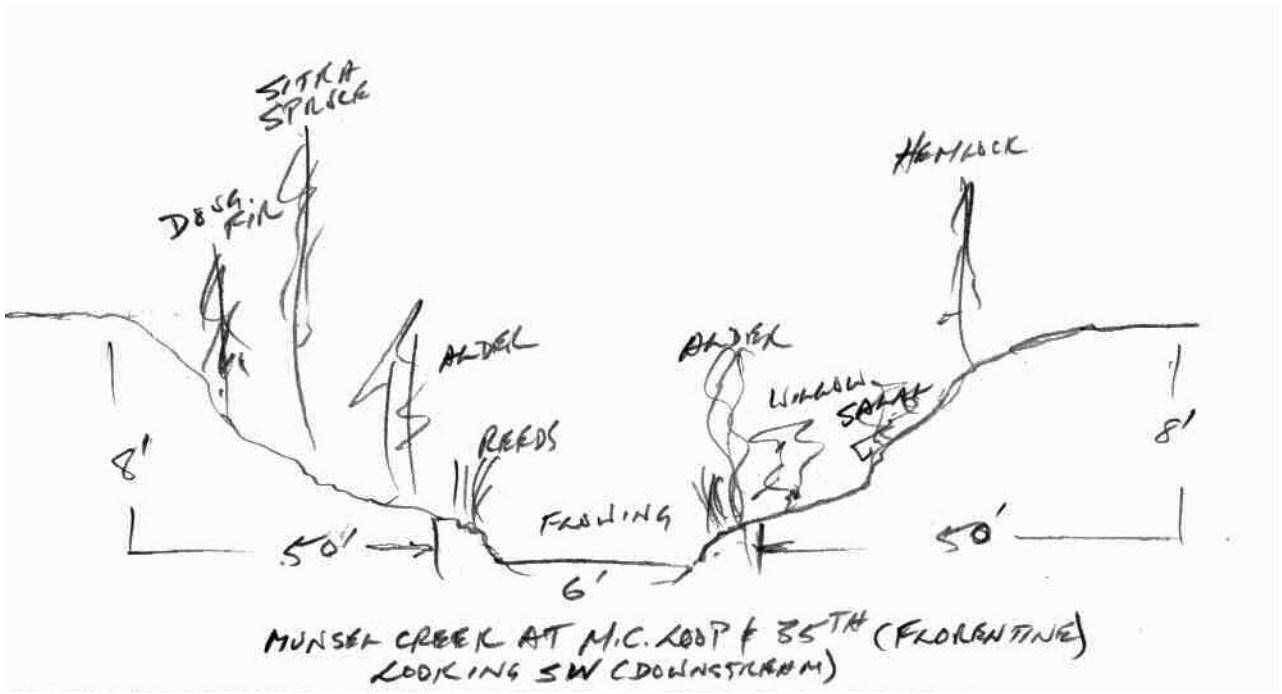
Potential tree height (PTH)/Actual Width of riparian area : 65/50L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-6.5Sveg, RMC-6.5Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-6.5	RMC - 6.5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 6	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Sitka Spruce	
Red Alder	
Willow	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC-6.7

Date: 3/25/2012 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

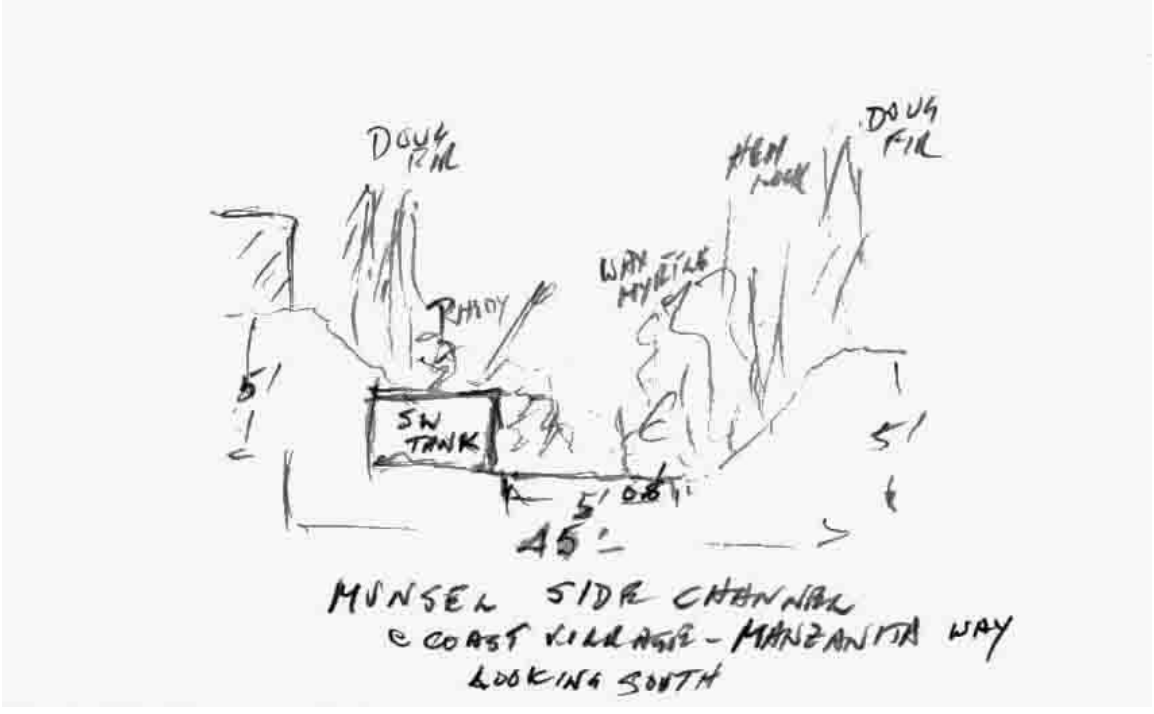
Potential tree height (PTH)/Actual Width of riparian area : 120/20 **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Heavy vegetation and tall trees. Structures at topographical break.
Culverts at all C.V. street crossings are low and passable by fish.

Photos RMC-6.7Nveg, RMC6.7Sveg, RMC-6.7Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-C side	RMC-6.7
Reach Length:		
Hydrologic Basin:		**On-site:** ☐ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: **Stream/River:** ☑ **Width:** 5 feet
Lake/Pond: ☐ **Width:** feet
Wetland: ☐ **Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☐
Residential: ☑ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Western Hemlock	Huckleberry
California Waxmyrtle	Rhododendron

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)
<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑

Extent of impervious surface within the riparian area. (Question 4)
<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)
Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)
Yes ☑ No ☐ N-S with heavy vegetation

Dominant vegetation layer within riparian area? (Question 10)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)
Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)
Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)
>40% ☐ 10% - 40% ☐ <10% ☑

Degree of development or human caused disturbance. (Question 19)
<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)
low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)
Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?
Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?
More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC-6.8S

Date: 3/25/2012 **Investigators:** C. Lysdale

Dominant tree species: Sitka Spruce

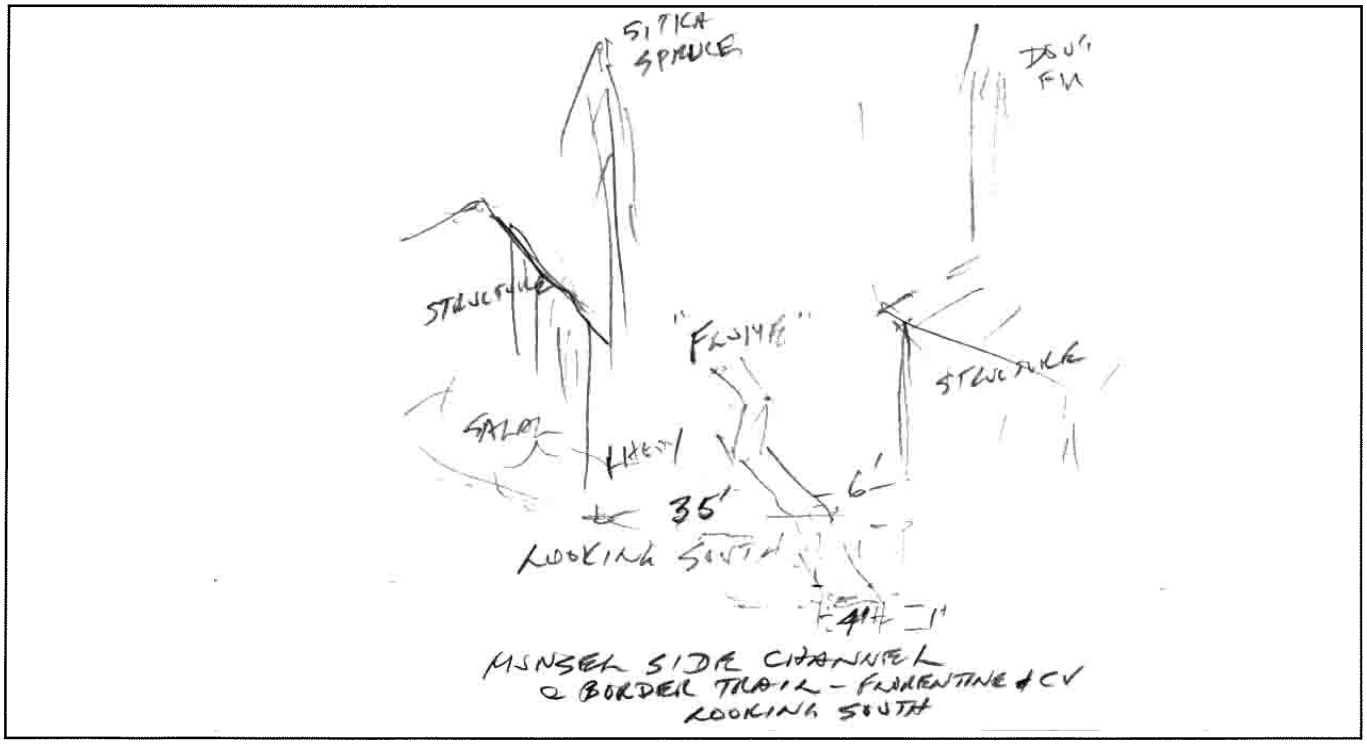
Potential tree height (PTH)/Actual Width of riparian area : 120/50N,15S **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Location is south side of Florentine-CV border trail.
Stream passes through a wooden "flume" with nearby structures.
Limited riparian vegetation as stream passes through a residential yard.

Photos RMC-6.8Sveg(CV), RMC-6.8OtrNveg, RMC-6.8OtrNflum

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-C side	RMC-6.8S
Reach Length:		
Hydrologic Basin:		**On-site:** ☐ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	✔	**Width:** 4 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☐

Are salmonids present in the adjacent water resource? Yes ✔ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ✔

Within FEMA-mapped 100-year floodplain: Yes ☐ No ✔

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	✔	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Sitka Spruce	Rhododendron

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ✔ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ✔ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ✔ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ✔

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☐ Herbaceous vegetation ✔ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ✔ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ✔

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ☐ <10% ✔

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ✔ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ✔ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☐ Bare ground ✔

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ✔

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ✔

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☐ 1 layer or unvegetated ✔

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC-6.8N

Date: 3/25/2012 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

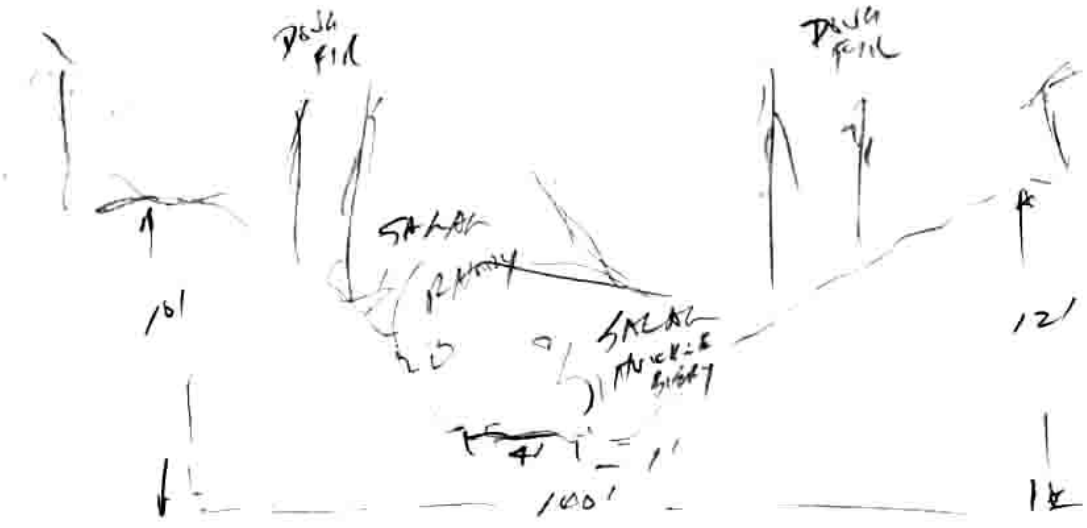
Potential tree height (PTH)/Actual Width of riparian area : 120/50N,15S **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Location is north side of Florentine-CV border trail.
Heavy vegetation, tall trees, and downed logs/woody debris.
Stream is well shaded by woody and herbaceous vegetation at top of bank.

Photos RMC-6.8Nveg(Flo) & RMC-6.8Nstr(Flo)

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-C side	RMC-6.8N
Reach Length:		
Hydrologic Basin:		**On-site:** ☐ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	✔	**Width:** 4 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☐

Are salmonids present in the adjacent water resource? Yes ✔ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ✔

Within FEMA-mapped 100-year floodplain: Yes ☐ No ✔

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	✔	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Sitka Spruce	Rhododendron
Red Alder	English Ivy
California Waxmyrtle	Huckleberry

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ✔ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ✔ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ✔

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ✔ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ✔ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ✔ No ☐

Large woody debris in riparian area? (Question 15)

Yes ✔ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ✔ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ✔ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ✔ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ✔ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ✔

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ✔

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ✔ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC-6.9

Date: 3/25/2012 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

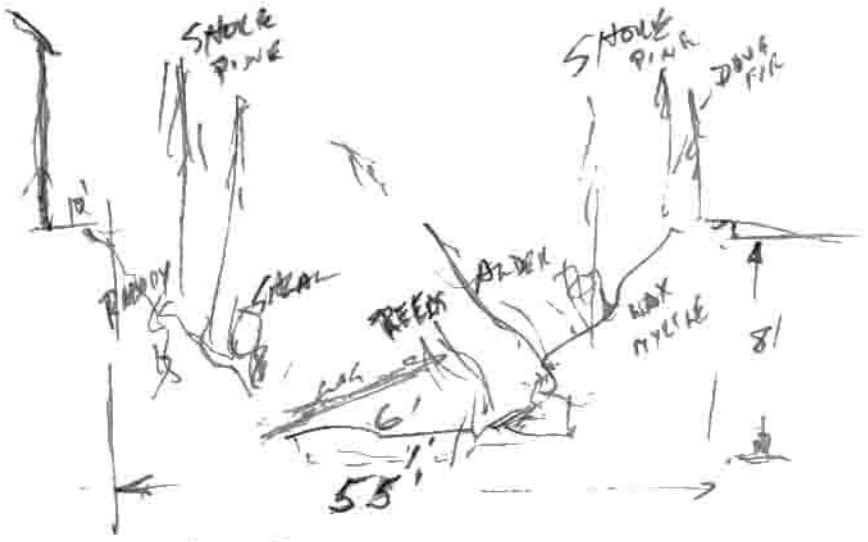
Potential tree height (PTH)/Actual Width of riparian area : 50/25 **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Open vegetation/brushy reeds at top of bank.
Tall trees and downed logs + woody debris in riparian area.
Reeds and grasses at top of bank on north side of bridge.

Photos RMC-6.9veg & RMC-6.9str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-C side	RMC-6.9
Reach Length:		
Hydrologic Basin:		**On-site:** ☐ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	✔	**Width:** 6 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☐

Are salmonids present in the adjacent water resource? Yes ✔ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ✔

Within FEMA-mapped 100-year floodplain: Yes ☐ No ✔

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	✔	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Salal
Douglas Fir	Rhododendron
Red Alder	Huckleberry
California Waxmyrtle	Reeds
	Grasses (north)

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ✔

Extent of impervious surface within the riparian area. (Question 4)

<10% ✔ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ✔

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ✔

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ✔ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ✔ No ☐

Large woody debris in riparian area? (Question 15)

Yes ✔ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ✔ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ✔ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ✔ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ✔ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ✔

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ✔

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ✔ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 6.5

Date: 10/28/2010 **Investigators:** C. Lysdale

Dominant tree species: Red Alder

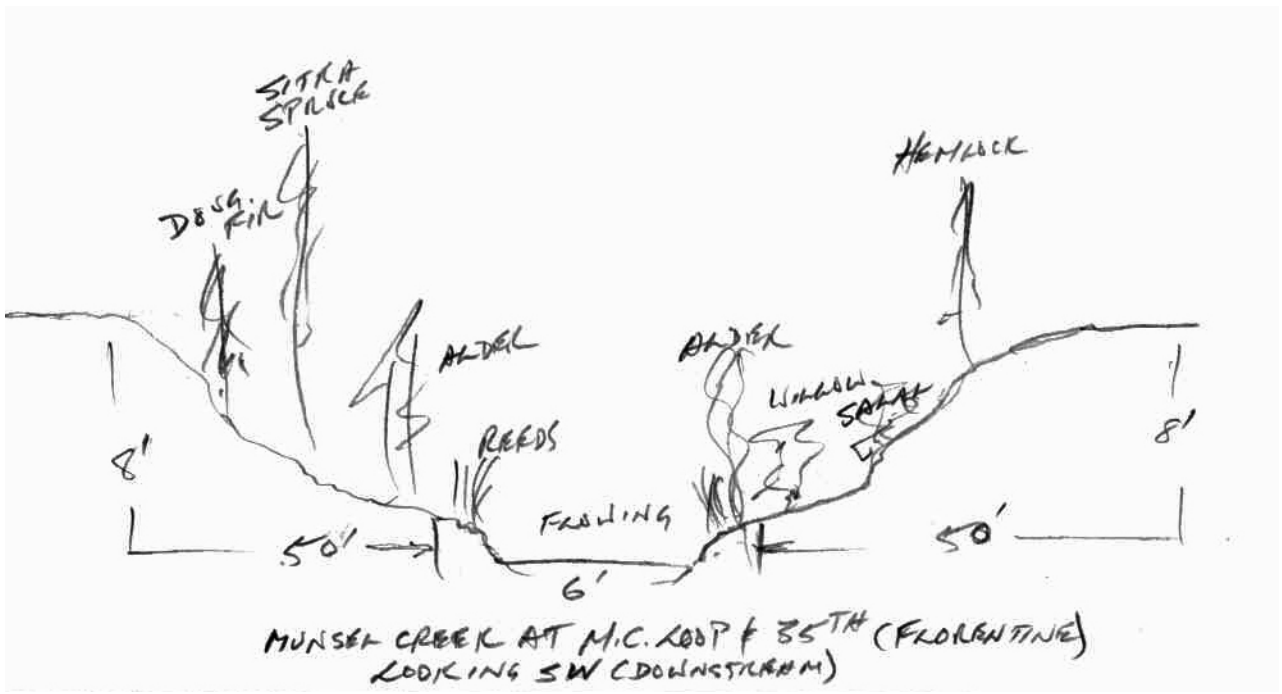
Potential tree height (PTH)/Actual Width of riparian area : 65/50L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-6.5Sveg, RMC-6.5Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-6.5	RMC - 6.5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 6	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Sitka Spruce	
Red Alder	
Willow	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 6.6

Date: 9/26/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

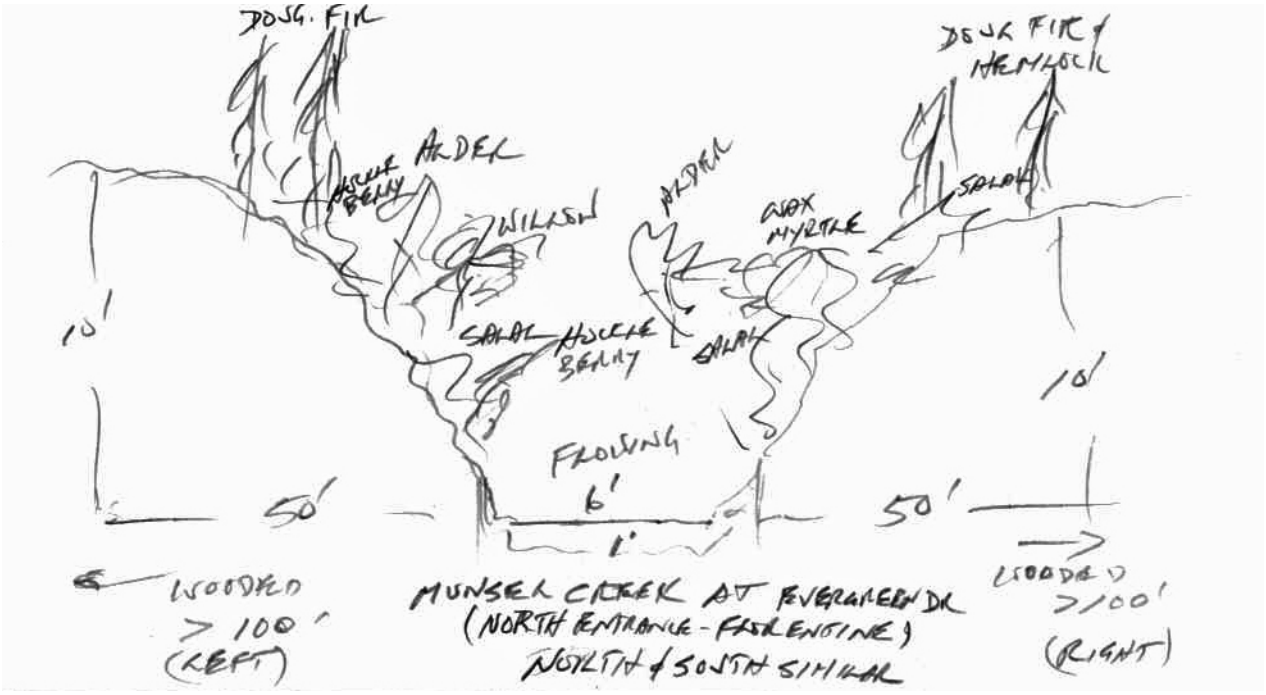
Potential tree height (PTH)/Actual Width of riparian area : 120/50L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-6.6Sveg, RMC-6.6Sstr ; RMC-6.6Nveg, RMC-6.6Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:	
Riparian Code:	RMC-6.6 South & North		RMC - 6.6
Reach Length:			
Hydrologic Basin:		**On-site:** ☑	**Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: Stream/River: ☑ Width: 6 feet
Lake/Pond: ☐ Width: _____ feet
Wetland: ☐ Width: _____ feet

LWI Wetland Code: _____

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Western Hemlock	Huckleberry
Red Alder	
California Wax Myrtle	
Willow	
Shore Pine	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)
<10:1 (10%) ☑ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)
<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)
Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)
Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)
Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)
Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)
>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)
<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)
low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)
Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?
Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?
More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 7 South

Date: 9/14/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

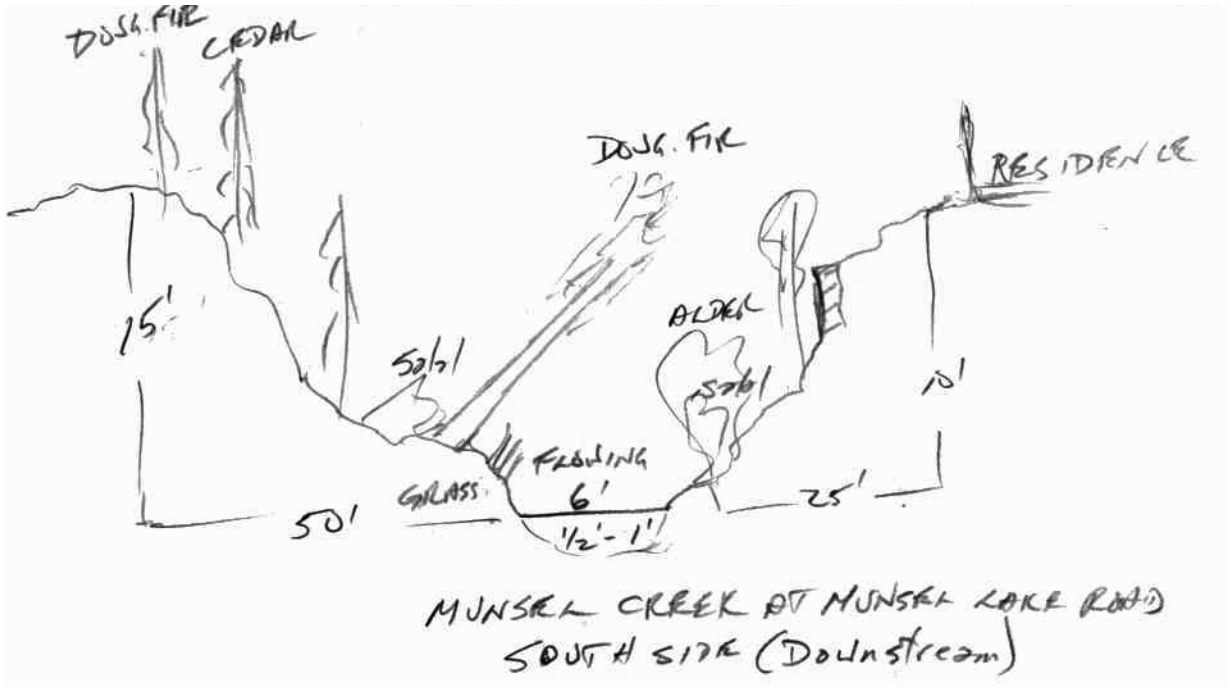
Potential tree height (PTH)/Actual Width of riparian area : 120/50L & 25R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Small retaining wall on right well above OHW.

Photos RMC-7S veg & RMC-7S str

Typical Cross Section:



MUNSEL CREEK AT MUNSEL LAKE ROAD
SOUTH SIDE (Downstream)

Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 7 South	RMC - 7
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 6 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Western Red Cedar	
Red Alder	
Salal	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 7 North

Date: 9/14/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir/Sitka Spruce

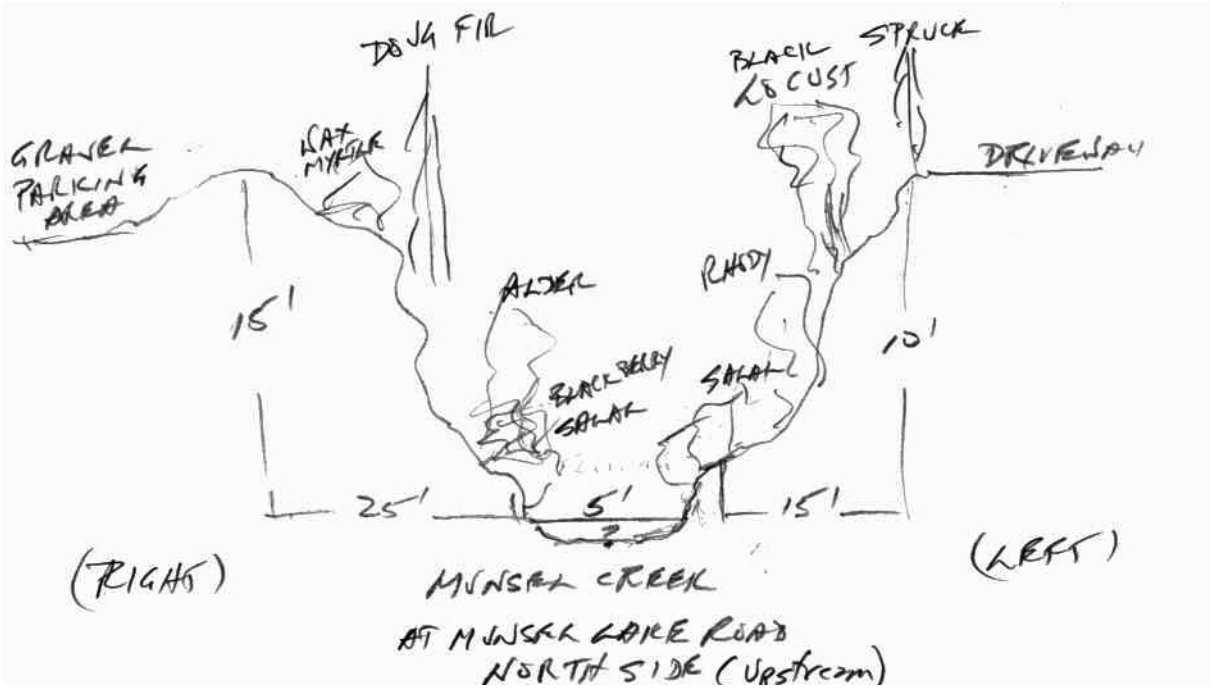
Potential tree height (PTH)/Actual Width of riparian area : 120/15L & 25R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-7N veg & RMC-7N str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 7 North	RMC - 7
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 5 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☐

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☑
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Douglas Fir	
Sitka Spruce	
Red Alder	
Black Locust	
California Wax Myrtle	
Rhododendron	
Salal, Blackberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ☑ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC-7.5

Date: 3/28/2011 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

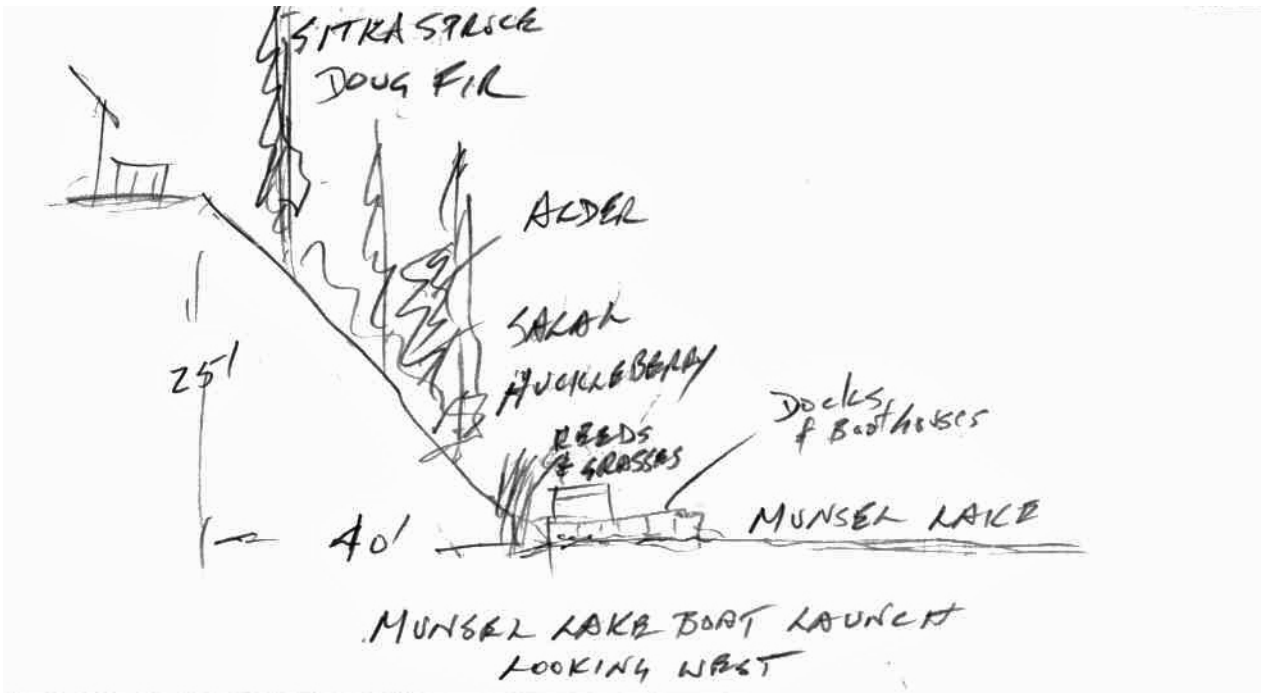
Potential tree height (PTH)/Actual Width of riparian area : 120/40 **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-D1	RMC-7.5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☐	**Width:**	feet
	Lake/Pond: ☑	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand/Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Sitka Spruce	Huckleberry
Red Alder	
Shore Pine	
Wasmyrtle	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☐ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC-7.7

Date: 3/28/2011 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

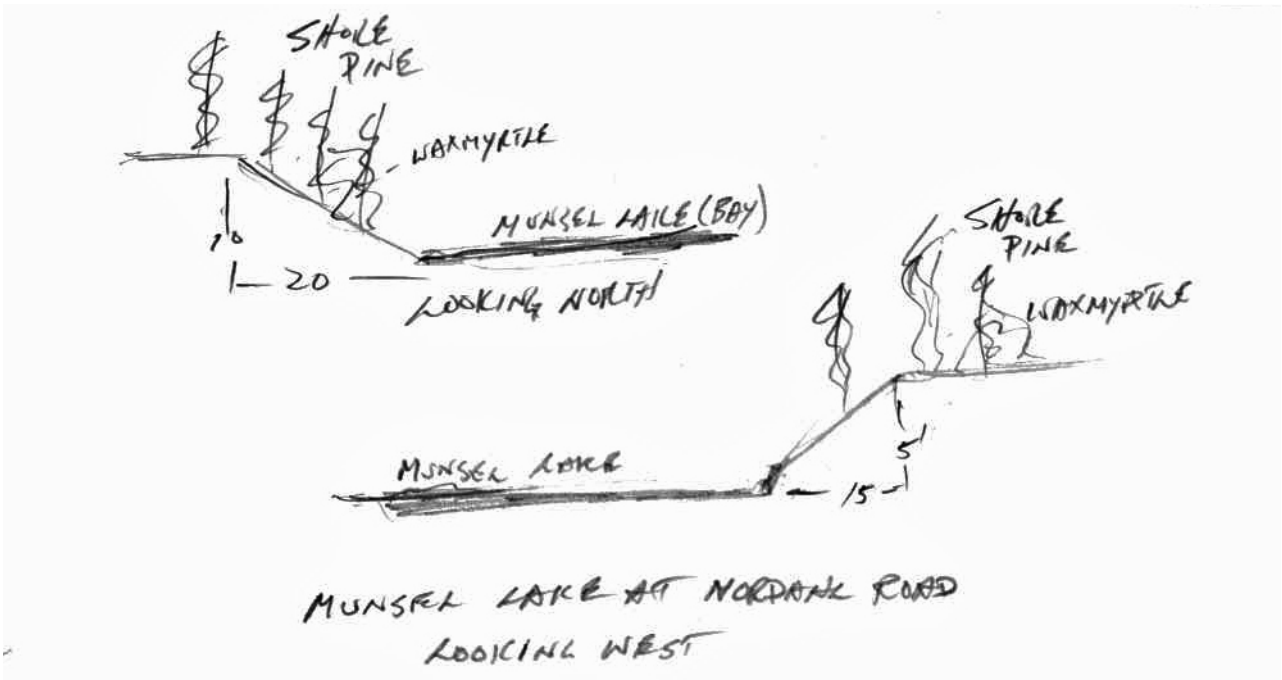
Potential tree height (PTH)/Actual Width of riparian area : 50/20 **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-D1	RMC-7.7
Reach Length:		
Hydrologic Basin:	Munsel Creek	**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: Stream/River: ☐ Width: _____ feet
Lake/Pond: ☑ Width: _____ feet
Wetland: ☐ Width: _____ feet

LWI Wetland Code: _____

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: _____

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☐
Residential: ☑ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Salal
Waxmyrtle	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)
<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑

Extent of impervious surface within the riparian area. (Question 4)
<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)
Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)
Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)
Yes ☐ No ☑

Large woody debris in riparian area? (Question 15)
Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)
>40% ☐ 10% - 40% ☑ <10% ☐

Degree of development or human caused disturbance. (Question 19)
<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)
low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)
Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)
Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?
Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?
More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 8 South

Date: 9/20/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

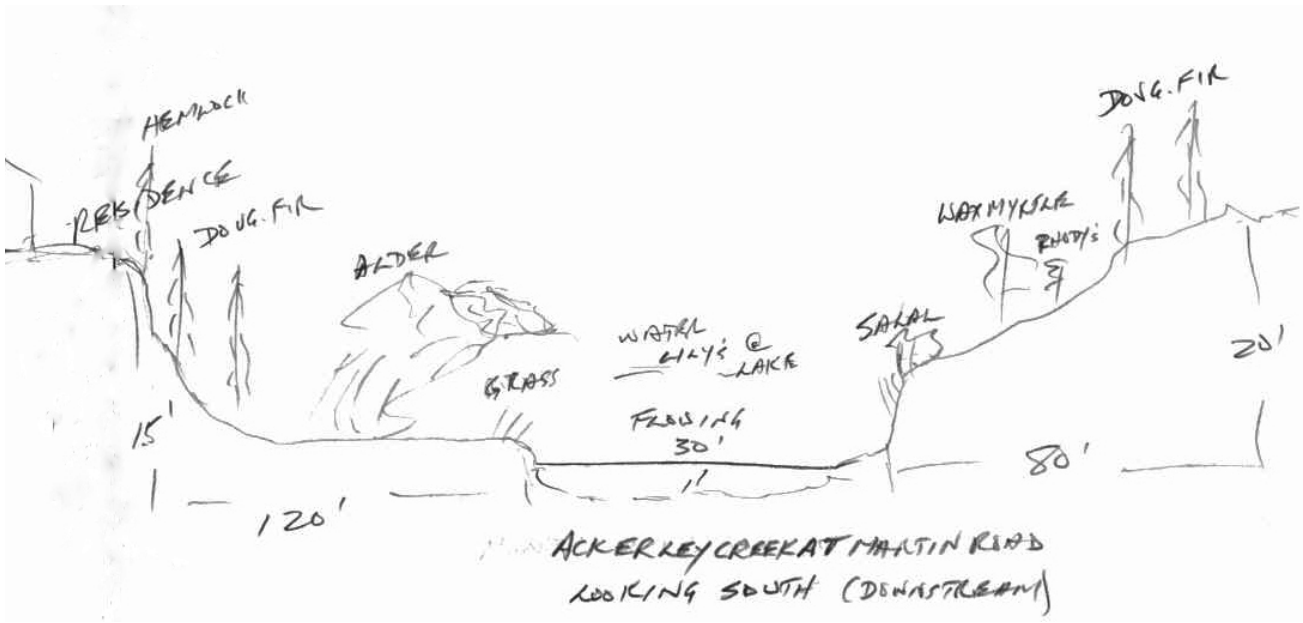
Potential tree height (PTH)/Actual Width of riparian area : 120/120L & 80R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-8Sveg, RMC-8Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-8 South	RMC - 8
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 30 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Netarts fine sand, 3-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Western Hemlock	Grasses
Red Alder	
California Wax Myrtle	
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑ (Shaded by canopy)

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☑ No or no flood prone area present ☐

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 8 North

Date: 9/20/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

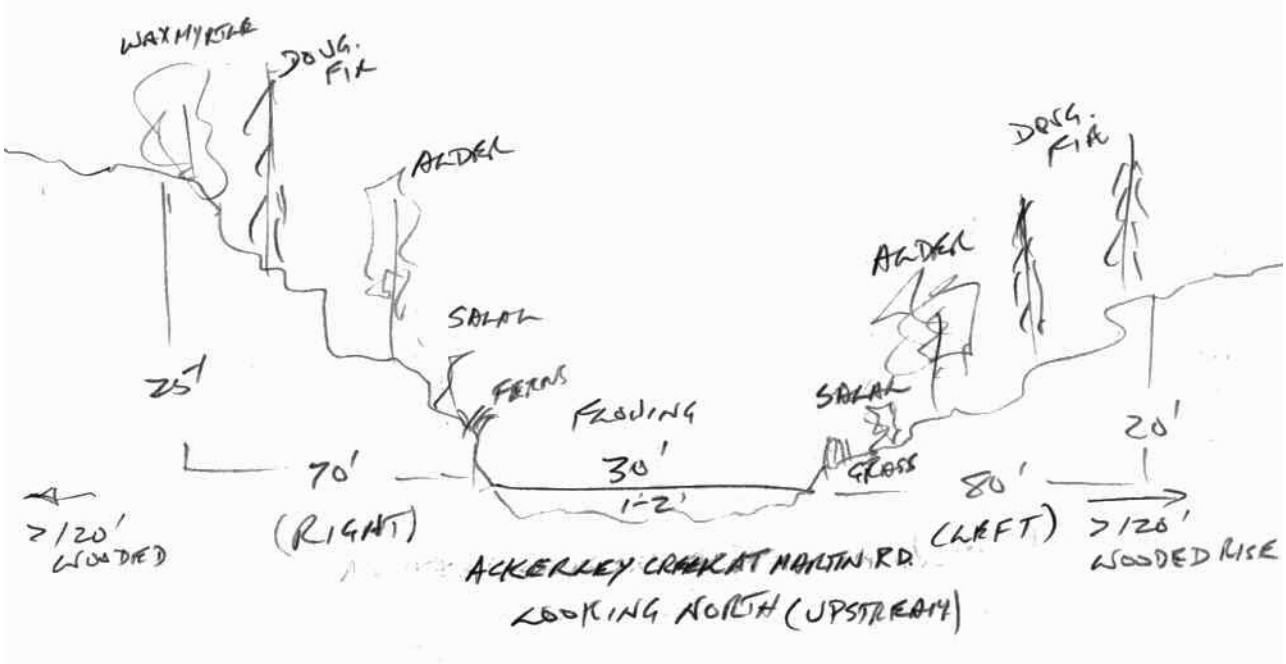
Potential tree height (PTH)/Actual Width of riparian area : 120/120L & 70R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RMC-8Nveg, RMC-8Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-8 North	RMC - 8
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 30 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Netarts fine sand, 3-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Red Alder	Grasses
California Wax Myrtle	Ferns

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☐ No ☑

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 9

Date: 9/18/2010 **Investigators:** C. Lysdale

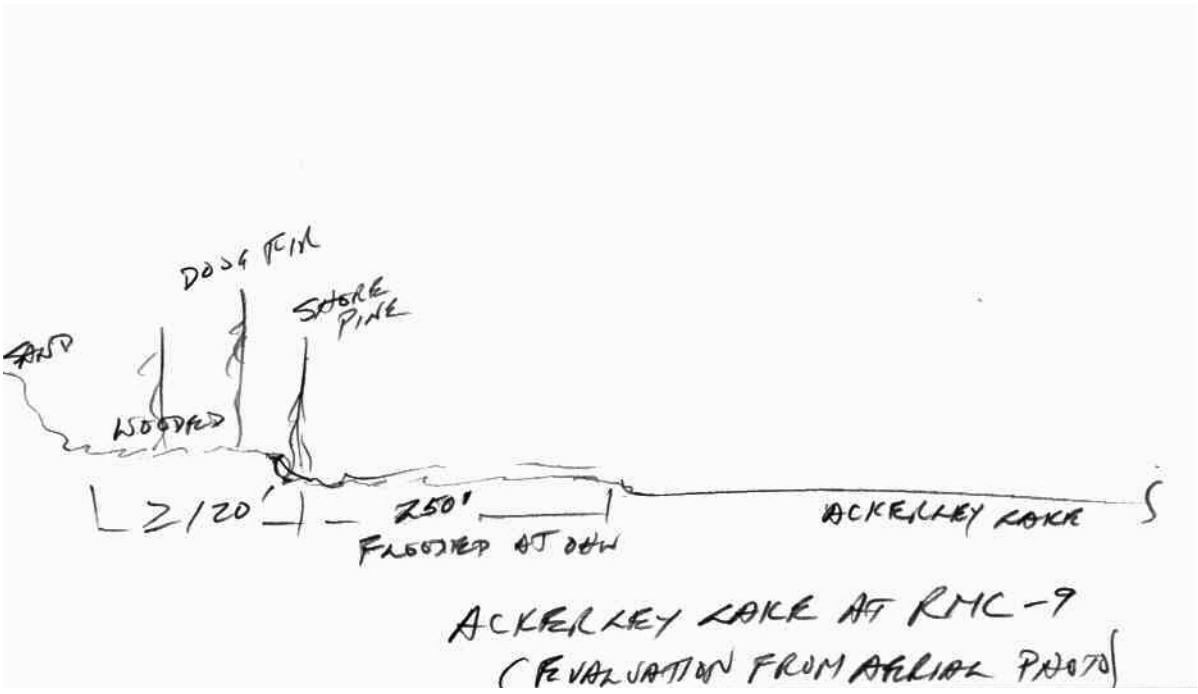
Dominant tree species: Douglas Fir

Potential tree height (PTH)/Actual Width of riparian area : 120/120+ **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: No access - evaluation by aerial photo/comparison with RMC-13. Riparian zone at this location appears to be a flat area between the lake and a wooded back margin, with sand dune further inland.

Typical Cross Section:



ACKERLEY LAKE AT RMC-9
(EVALUATION FROM AERIAL PHOTO)

Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 9	RMC - 9
Reach Length:		
Hydrologic Basin:		**On-site:** ☐ **Off-Site:** ☑

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☐	**Width:**	feet
	Lake/Pond: ☑	**Width:** 200-500	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Bullards-Ferrelo loams, 7-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	
Shore Pine	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☐ No ☑

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 10

Date: 9/18/2010 **Investigators:** C. Lysdale

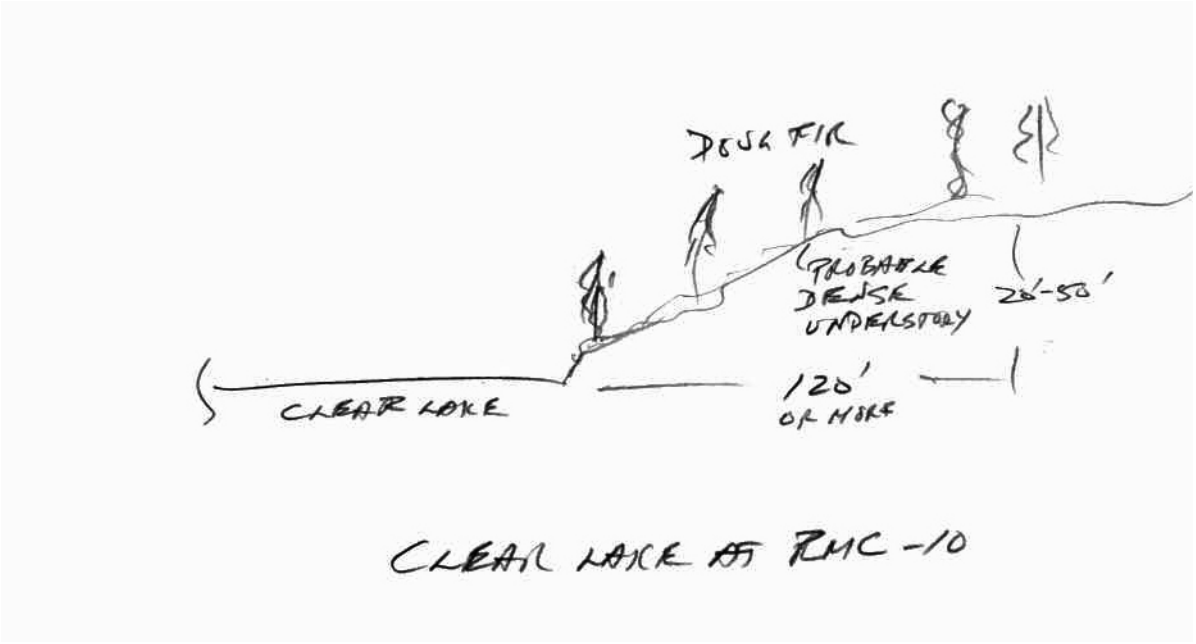
Dominant tree species: Douglas Fir

Potential tree height (PTH)/Actual Width of riparian area : 120/120+ **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: No access - evaluation by aerial photo/comparison with RMC-12. Riparian area appears to be heavily wooded to lake shore with no indication of a seasonal flood plain.

Typical Cross Section:



CLEAR LAKE AT RMC-10

Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 10	RMC - 10
Reach Length:		
Hydrologic Basin:		**On-site:** ☐ **Off-Site:** ☑

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☐	**Width:**	feet
	Lake/Pond: ☑	**Width:** 1000	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Slickrock gravelly loam, 3-25% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☐	**Forestry:**	☑

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	
Shore Pine	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 11

Date: 9/18/2010 **Investigators:** C. Lysdale

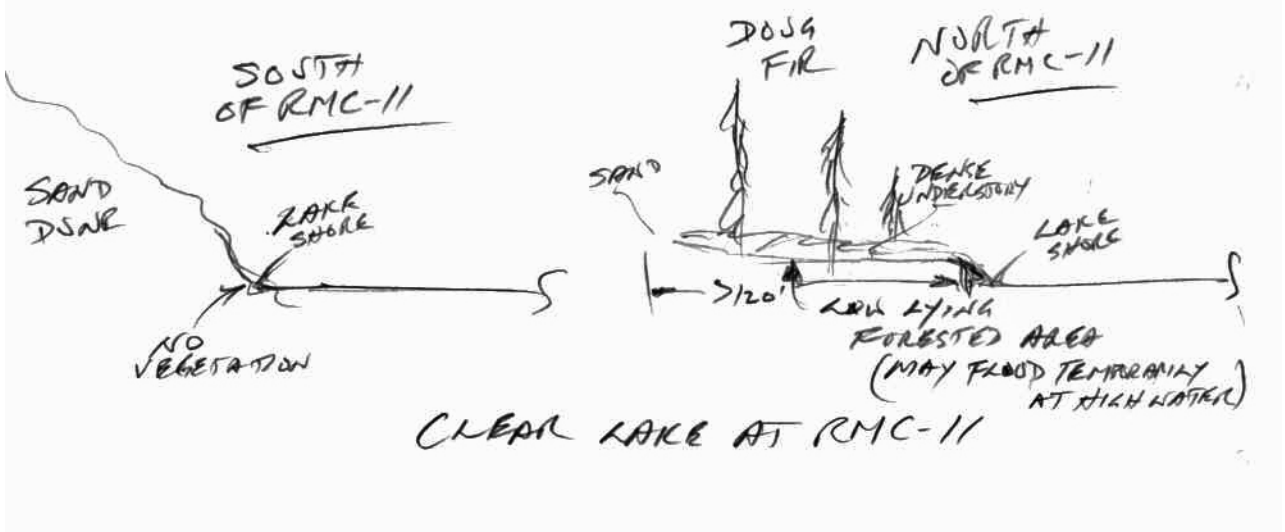
Dominant tree species: Douglas Fir

Potential tree height (PTH)/Actual Width of riparian area : 120/120+N, 0S **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: No access - evaluation by aerial photo/comparison with RMC-13. Riparian area at this location appears to transition from sand at waterline (south) to low lying forested area backed by sand dune (north).

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC - 11	RMC - 11
Reach Length:		
Hydrologic Basin:		**On-site:** ☐ **Off-Site:** ☑

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☐	**Width:**	feet
	Lake/Pond: ☑	**Width:** >1000	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☑ No ☐

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Dune land

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ North Herbaceous vegetation ☐ Bare ground ☑ South

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☑

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ☑ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☑

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ North Herbaceous vegetation ☐ Bare ground ☑ South

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☑ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ North 1 layer or unvegetated ☑ South

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 12

Date: 9/15/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir/Sitka Spruce

Potential tree height (PTH)/Actual Width of riparian area : 120/120+ **feet**
(Width measured horizontally from edge of water resource)

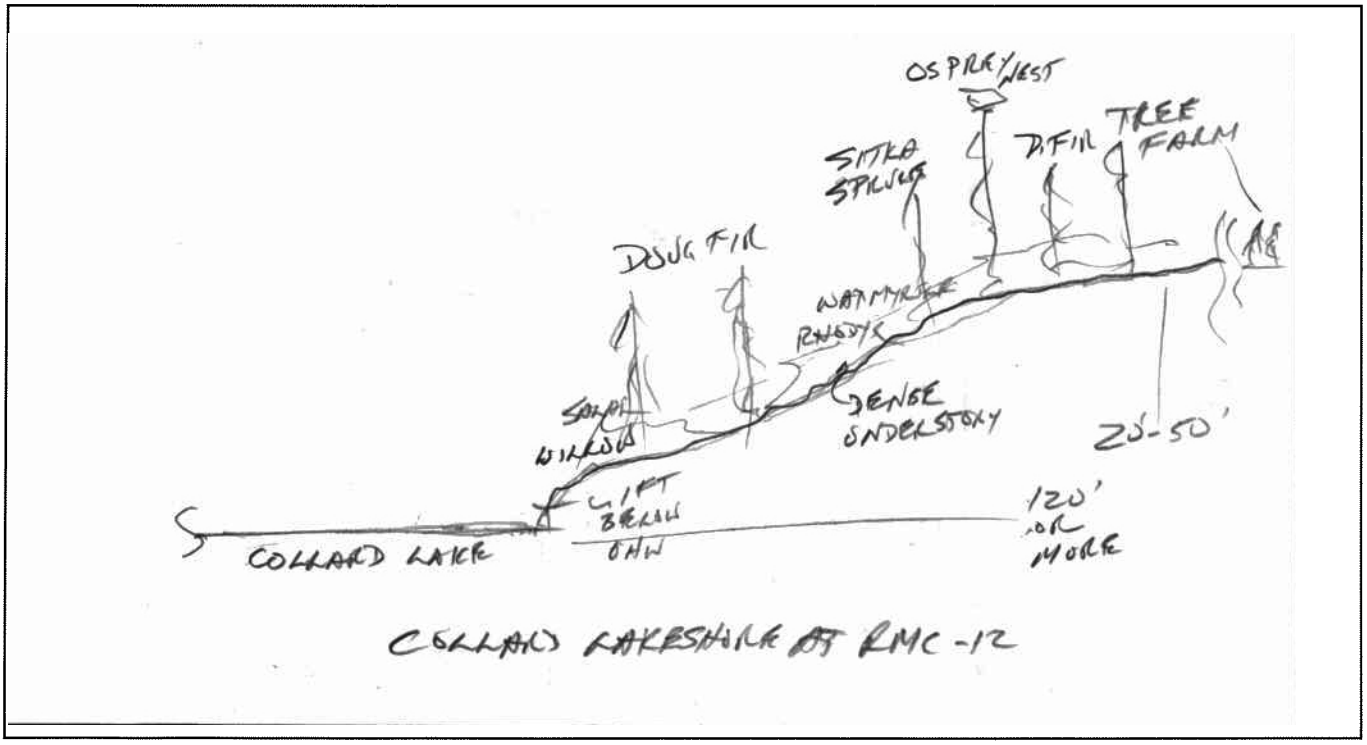
PTH determined by:

On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Riparian area is => 120 ft wide on East through North sides of Collard Lake - except for scattered residence clearings.
(Note tree farm beyond riparian zone)

Photos RMC-12_13, RMC-12

Typical Cross Section:



COLLARD LAKESHORE AT RMC-12

Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-12	RMC - 12
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☐	**Width:**	feet
	Lake/Pond: ☑	**Width:** 200 - 800	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Bullards-Ferrelo loams, 7-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☑

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Sitka Spruce	
Willow	
California Wax Myrtle	
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐ (Near shoreline)

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RMC - 13

Date: 9/15/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir/Sitka Spruce

Potential tree height (PTH)/Actual Width of riparian area : 120/120+ **feet**
(Width measured horizontally from edge of water resource)

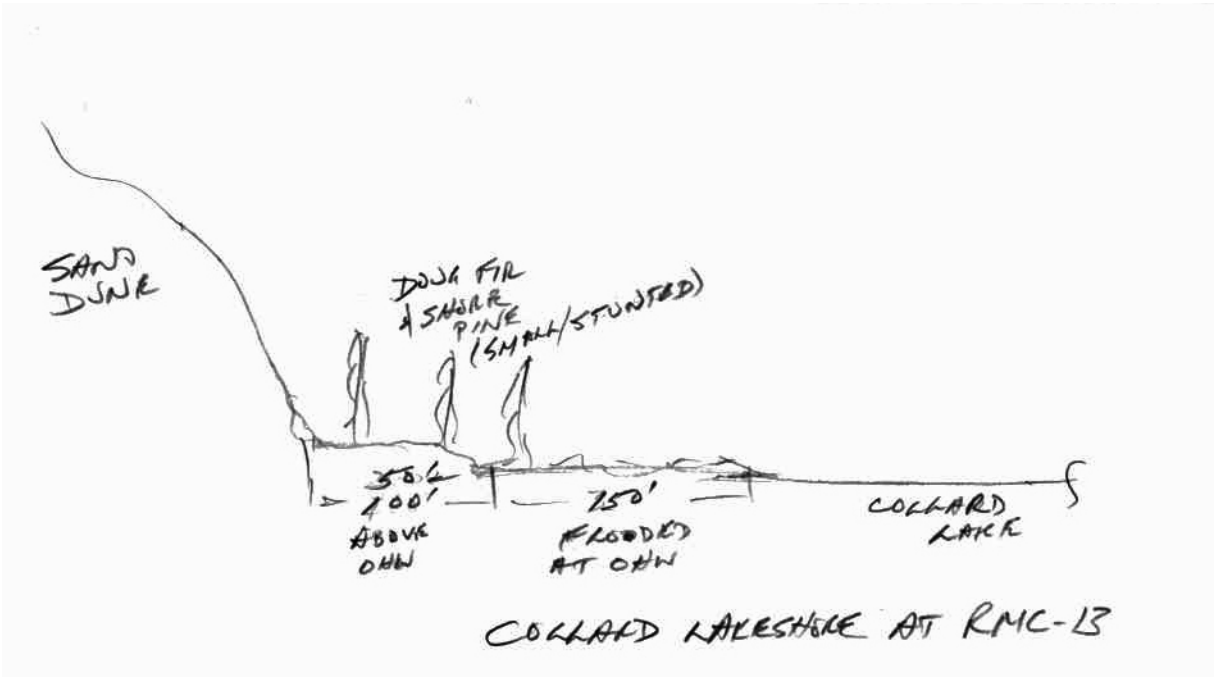
PTH determined by:

On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: RMC-13 is a flat area between Collard Lake and an encroaching sand dune. It is of small extent (400 ft long). To the south, the sand dune borders the lake. To the north, the riparian area slopes up from the lake shore and is heavily wooded with width > 120 ft.

Photos RMC-13N, RMC-13

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RMC-13	RMC - 13
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☐	**Width:**	feet
	Lake/Pond: ☑	**Width:** 200 - 800	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Dune land

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	
Shore Pine	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☐ No ☑

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☑

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 0.3

Date: 10/24/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

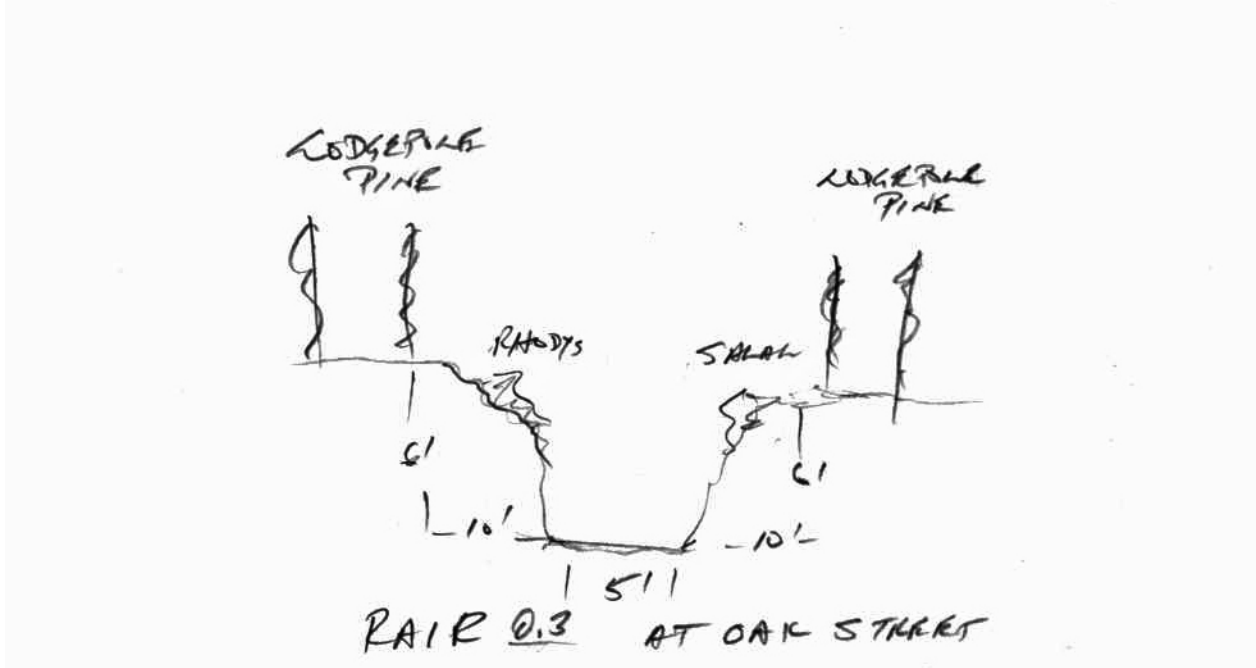
Potential tree height (PTH)/Actual Width of riparian area : 50/10L & 10R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Stream emerges from a culvert at this location. Channel appears to be excavated and cleared.

Photos RAIR-0.3veg, RAIR-0.3str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-A	RAIR - 0.3
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 5 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Salal
	Rhododendron

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ☐ <10% ☑

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☐ 1 layer or unvegetated ☑

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 0.6

Date: 10/24/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

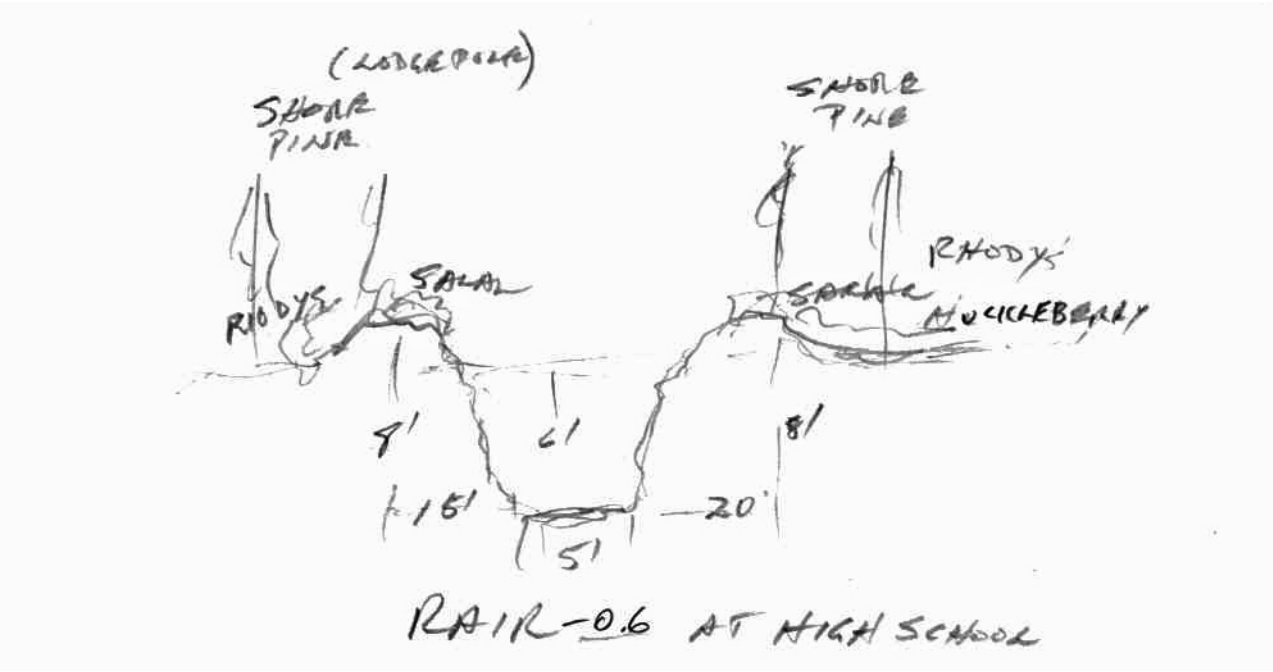
Potential tree height (PTH)/Actual Width of riparian area : 50/15L & 20R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Channel appears to be excavated and cleared, including berms on each side.

Photos RAIR-0.6veg, RAIR-0.6str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:	
Riparian Code:	RAIR-A		RAIR - 0.6
Reach Length:			
Hydrologic Basin:		On-site: ☑	Off-Site: ☐

WATER RESOURCE INFORMATION

Water Resource:	Stream/River: ☑	Width: 5	feet
	Lake/Pond: ☐	Width:	feet
	Wetland: ☐	Width:	feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	Roads:	☐
Commercial/Indus.:	☐	Undeveloped:	☑
Residential:	☑	Forestry:	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Salal
	Rhododendron
	Huckleberry

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☑ No ☐ Berms left and right

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ☐ <10% ☑

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☐ 1 layer or unvegetated ☑

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 1

Date: 9/26/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

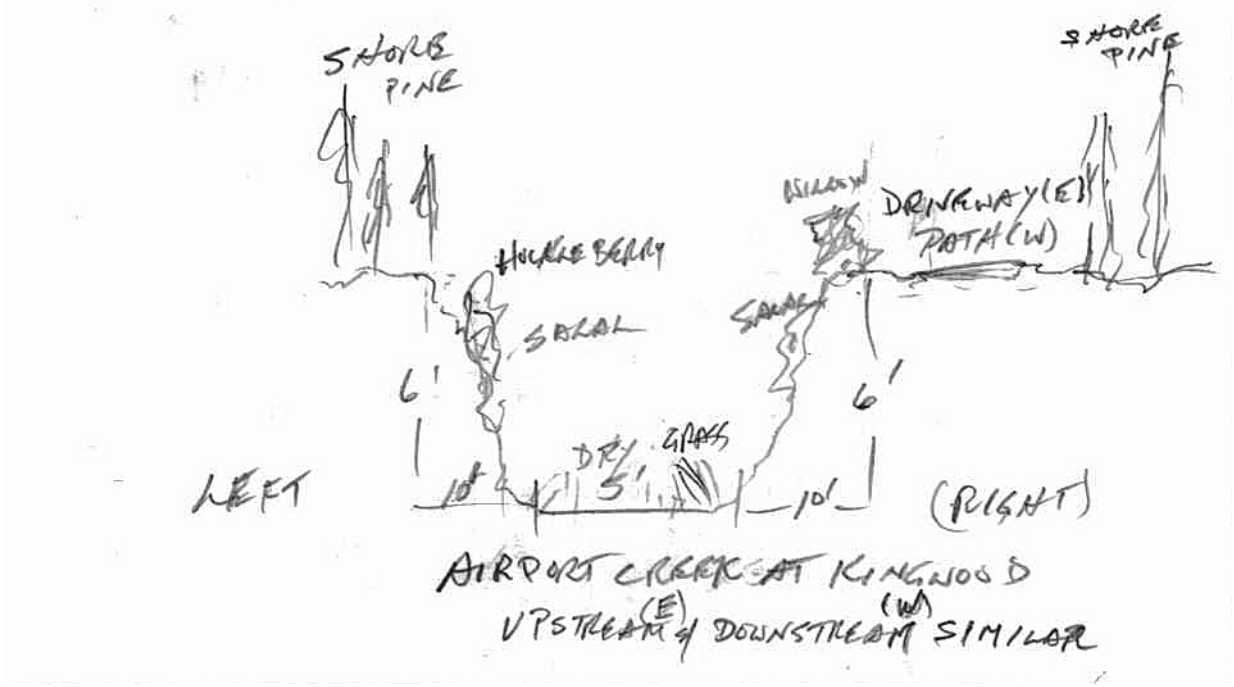
Potential tree height (PTH)/Actual Width of riparian area : 50/10L & 10R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Streambed appears to be cleared. Banks are almost vertical to break in slope, surrounding area is level.

Photos RAIR-1Sveg, RAIR-1Sstr ; RAIR-1Nveg, RAIR-1Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-1 South & North	RAIR - 1
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: Stream/River: ☑ **Width:** 5 feet
Lake/Pond: ☐ **Width:** feet
Wetland: ☐ **Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☑	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Salal
Willow	Huckleberry

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)
<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)
<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)
Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)
Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)
Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)
Yes ☐ No ☑

Large woody debris in riparian area? (Question 15)
Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)
>40% ☐ 10% - 40% ☑ <10% ☐

Degree of development or human caused disturbance. (Question 19)
<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)
low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)
Woody vegetation ☐ Herbaceous vegetation ☐ Bare ground ☑

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)
Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?
Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?
More than 2 ☐ 2 layers ☐ 1 layer or unvegetated ☑

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 1.5

Date: 9/22/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

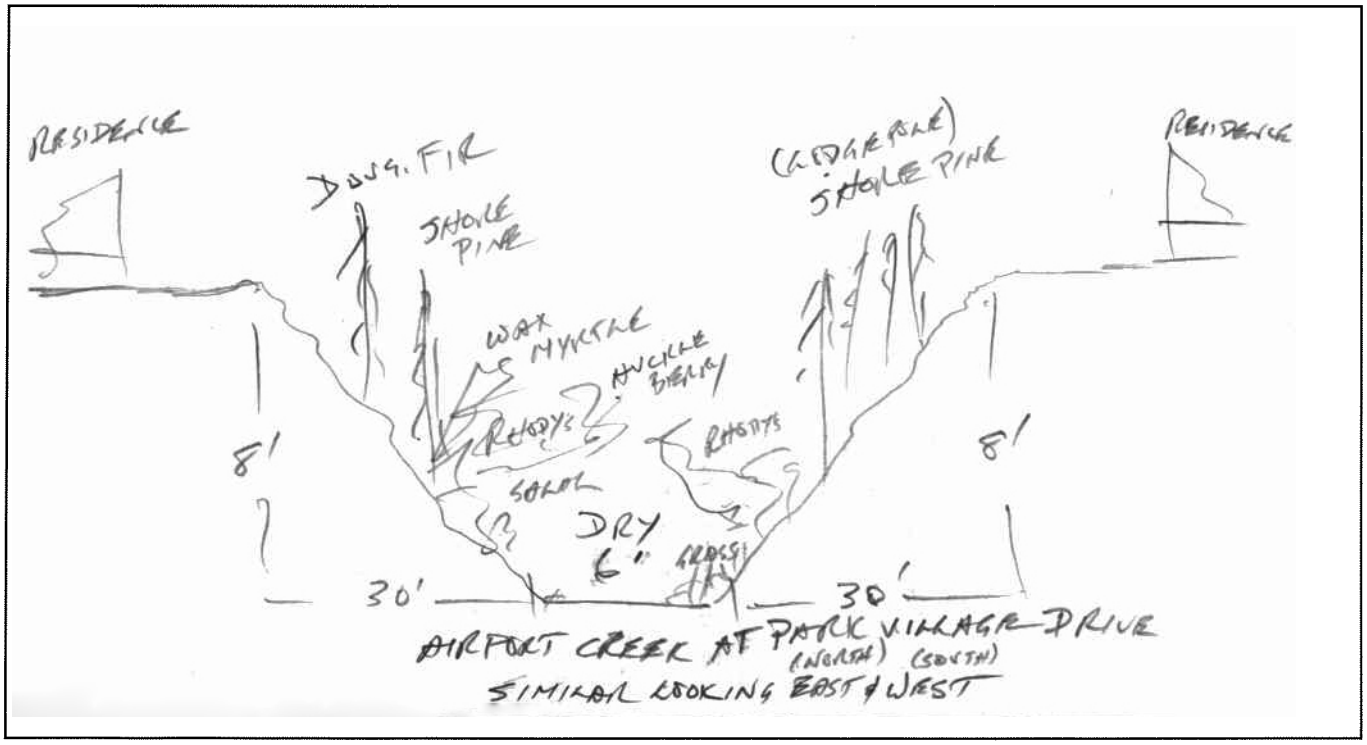
Potential tree height (PTH)/Actual Width of riparian area : 50/30L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Streambed appears to be cleared/straightened to the east.

Photos RAIR-1.5Sveg, RAIR-1.5Sstr ; RAIR-1.5Nveg, RAIR-1.5Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-1.5	RAIR - 1.5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: **Stream/River:** ☑ **Width:** 6 feet
Lake/Pond: ☐ **Width:** feet
Wetland: ☐ **Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☐
Residential: ☑ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Shore Pine	Huckleberry
California Wax Myrtle	Grasses
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 2 North

Date: 9/22/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

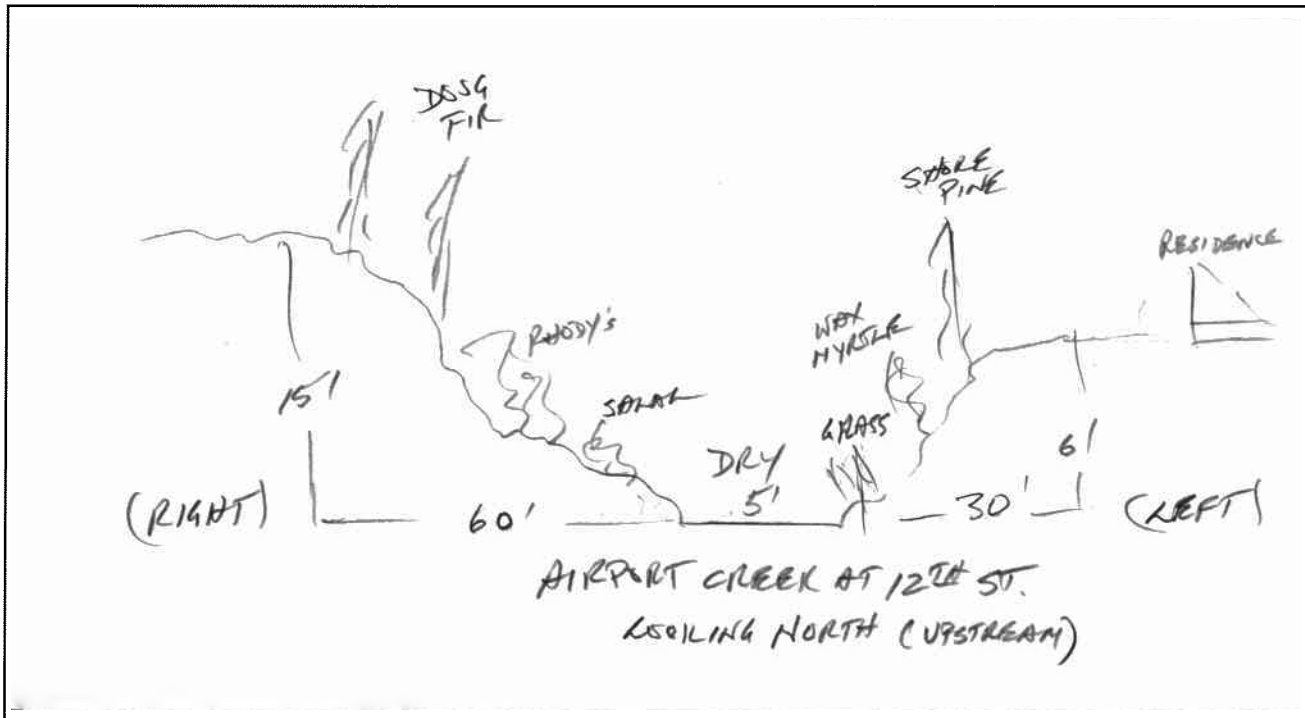
Potential tree height (PTH)/Actual Width of riparian area : 50/30L & 60R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RAIR-2Nveg, RAIR-2Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-2 North	RAIR - 2
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource: Stream/River: ☑ **Width:** 5 feet
Lake/Pond: ☐ **Width:** feet
Wetland: ☐ **Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☐
Residential: ☑ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Shore Pine	Grasses
California Wax Myrtle	
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 2 South

Date: 9/22/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

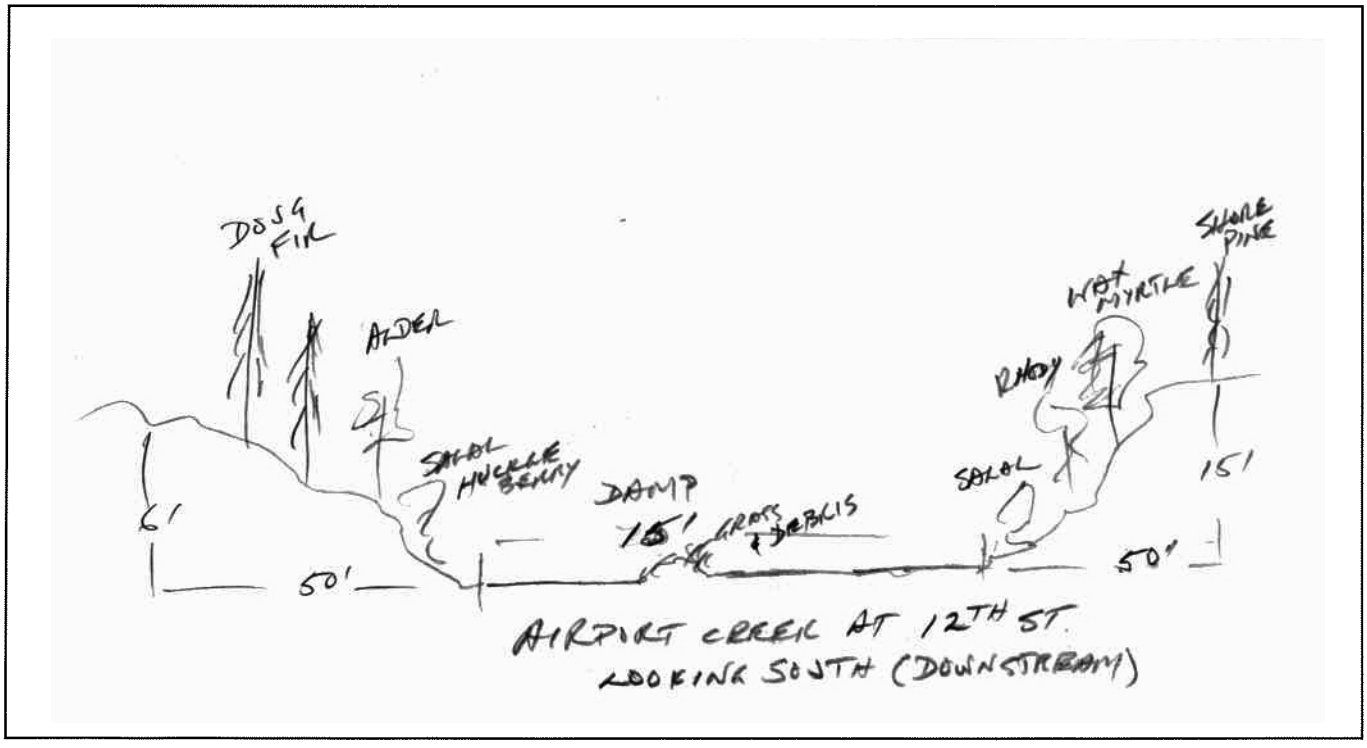
Potential tree height (PTH)/Actual Width of riparian area : 120/50L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Streambed not well defined at this location (crossing 12th street RoW). Consists of a low-lying wide flat area interspersed with debris and vegetation. No culvert.

Photos RAIR-2Sveg, RAIR-2Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-2 South	RAIR - 2
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 15	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Shore Pine	Huckleberry
California Wax Myrtle	Grasses
Red Alder	
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑ (Shaded by canopy)

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 3 North

Date: 8/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

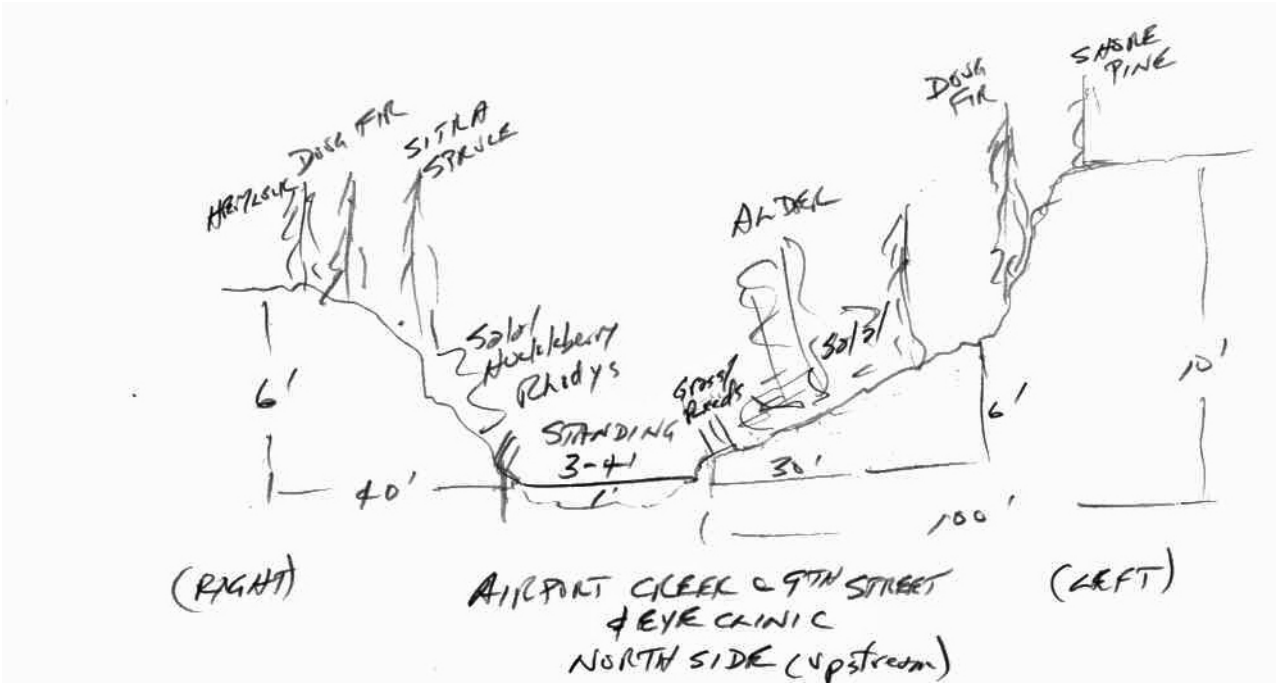
Potential tree height (PTH)/Actual Width of riparian area : 50/100L & 40R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RAIR-3Nveg, RAIR-3Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-3 North	RAIR - 3
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 4 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☑	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Reeds
Sitka Spruce	Grasses
Western Hemlock	
Shore Pine	
Red Alder	
Rhododendron	
Salal, Huckleberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑ Shaded by canopy

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 3 South

Date: 8/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Red Alder

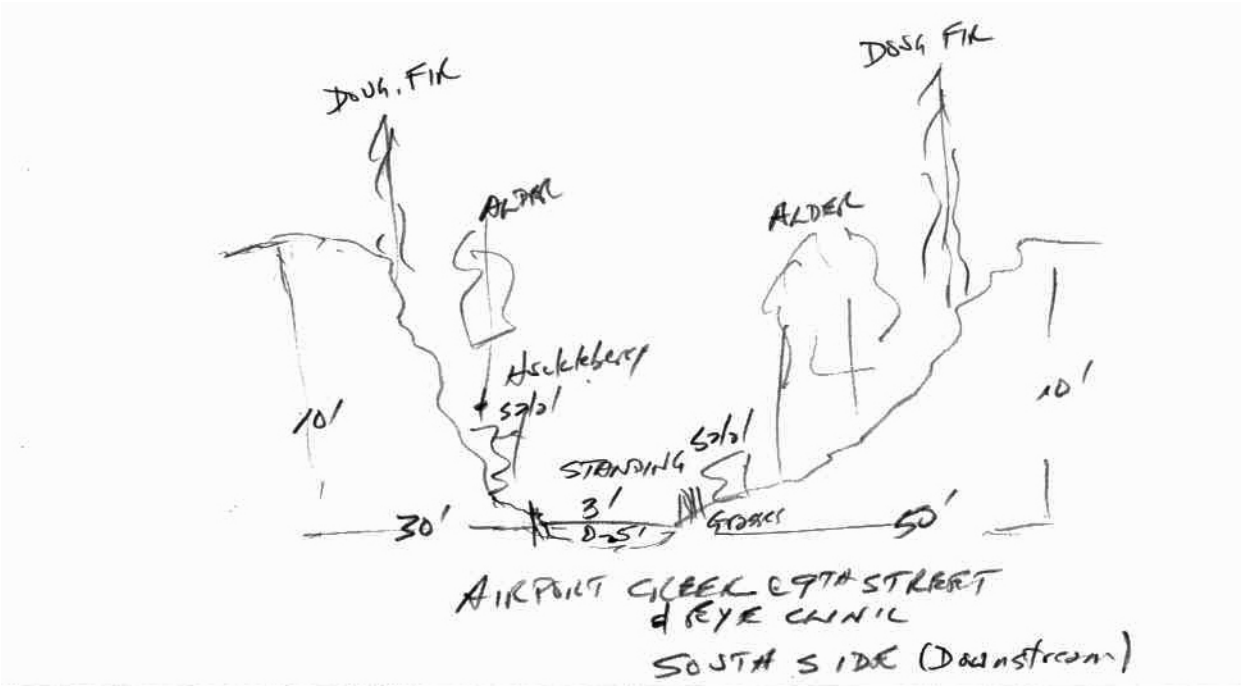
Potential tree height (PTH)/Actual Width of riparian area : 65/30L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RAIR-3Sveg, RAIR-3Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-3 South	RAIR - 3
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 3 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☑	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Grasses
Red Alder	
Salal	
Huckleberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Right >5:1 (20%) ☑ Left

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑ Shaded by canopy

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 4

Date: 9/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir/Western Hemlock

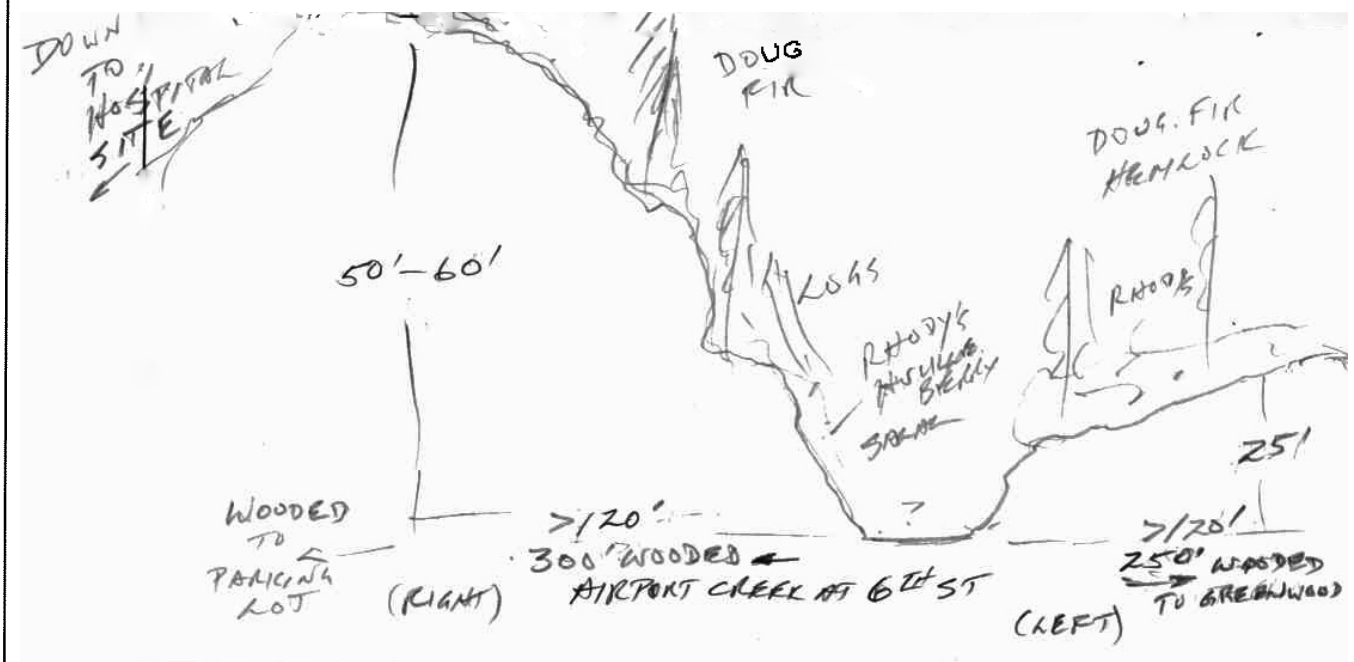
Potential tree height (PTH)/Actual Width of riparian area : 120/120E&W **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: E-W location of stream is uncertain - no access due to heavy vegetation and steep terrain.

Photos RAIR-4veg0, RAIR-4veg1; RAIR-4veg5, RAIR-4veg4

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-4	RAIR - 4
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** N/A	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Western Hemlock	Huckleberry
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑ Shaded by canopy

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 5 North

Date: 9/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Red Alder

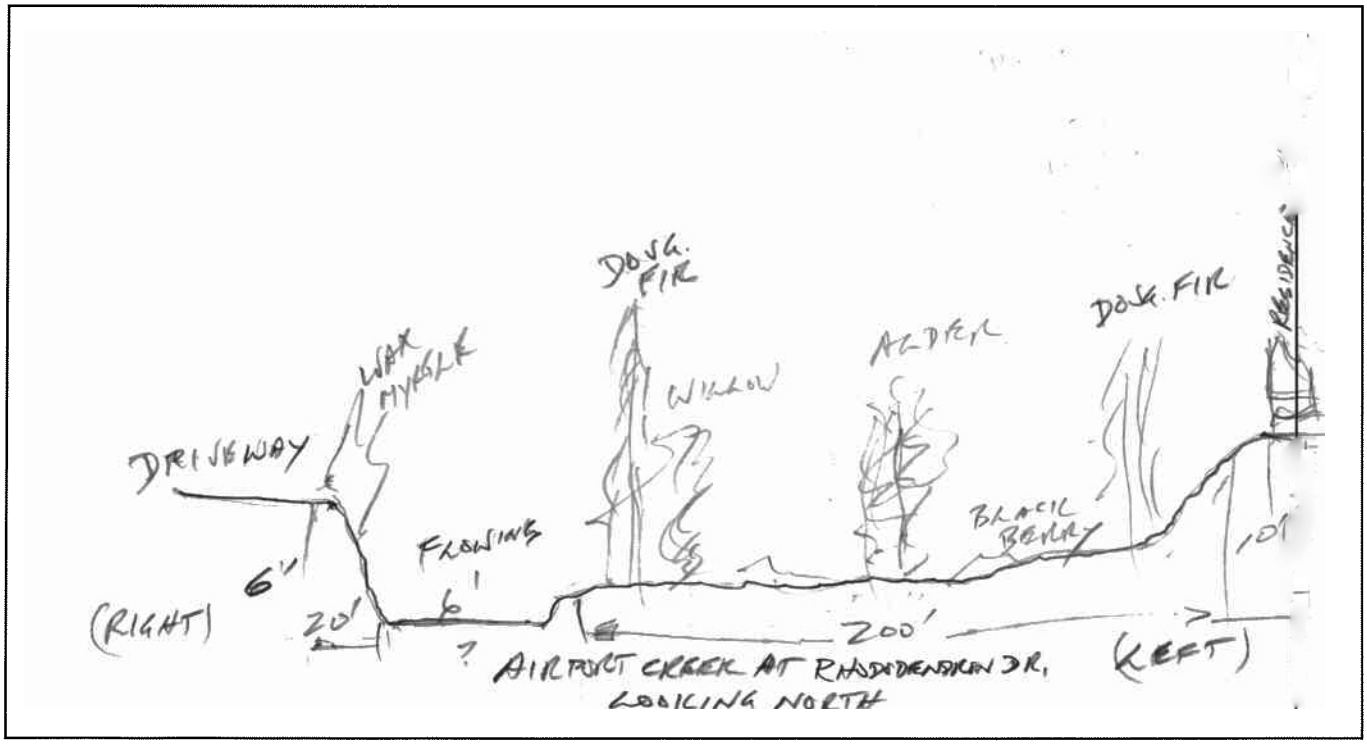
Potential tree height (PTH)/Actual Width of riparian area : 65/200L & 20R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RAIR-5Nveg, RAIR-5Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-5 North	RAIR - 5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 6 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	
Willow	
Red Alder	
California Wax Myrtle	
Blackberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Right Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☑ No or no flood prone area present ☐

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 5 South

Date: 9/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Red Alder

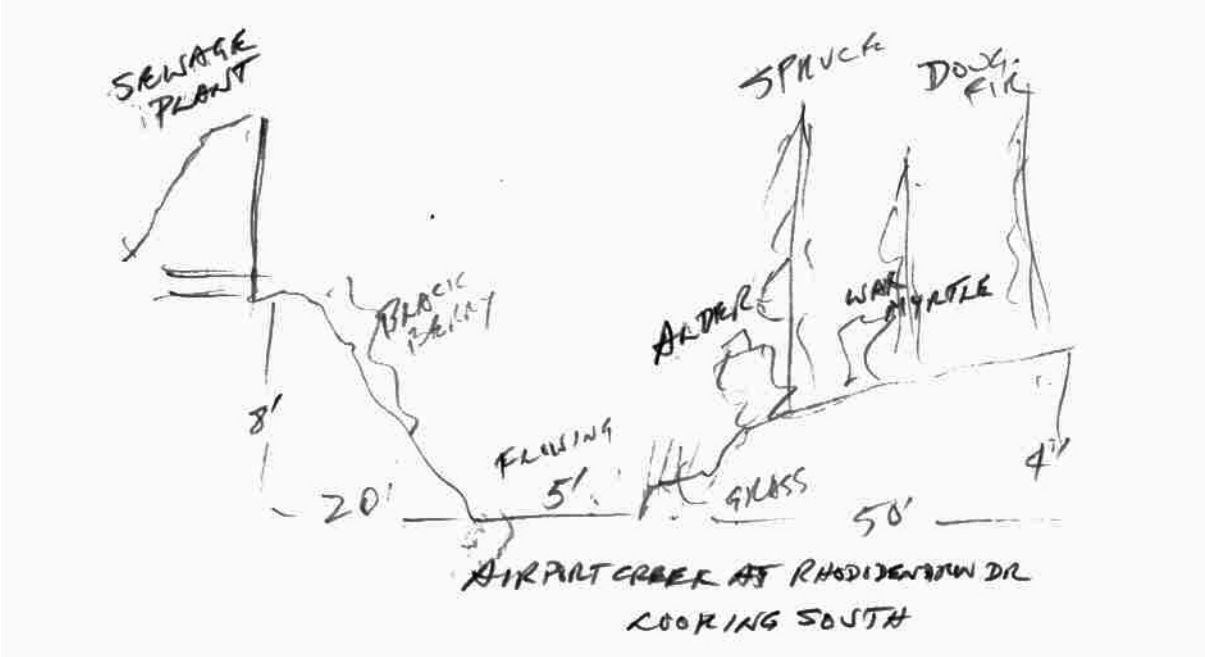
Potential tree height (PTH)/Actual Width of riparian area : 65/20L & 50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Rip-rap bank at sewage plant

Photos RAIR-5Sveg, RAIR-5Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-5 South	RAIR - 5
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 5	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes/Dune land

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☑	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Sitka Spruce	Grasses
Douglas Fir	
Red Alder	
California Wax Myrtle	
Blackberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☑ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 6 North

Date: 9/22/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

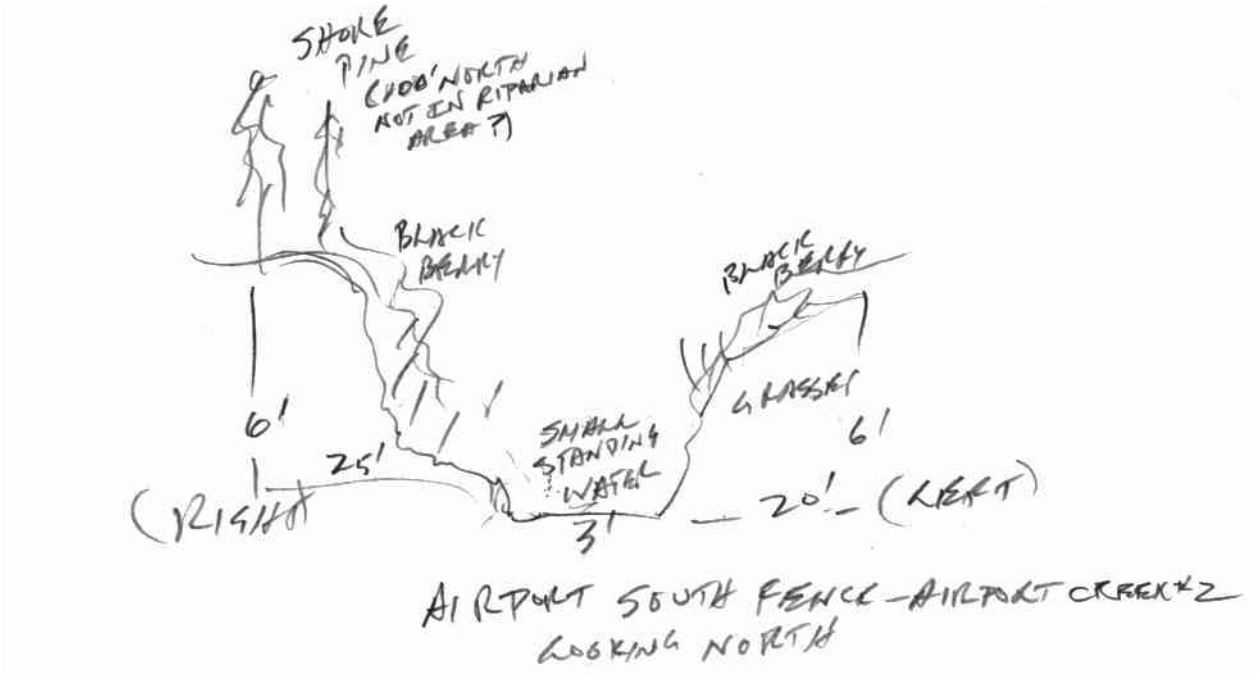
Potential tree height (PTH)/Actual Width of riparian area : 50/20L & 25R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Stream drains very limited area, and streambed appears usually dry.

Photos RAIR-6Nveg, RAIR-6Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-6 North	RAIR - 6
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 3	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Blackberry

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☐ No ☑

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ☐ <10% ☑

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☐ 1 layer or unvegetated ☑

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 6 South

Date: 9/22/2010 **Investigators:** C. Lysdale

Dominant tree species: Douglas Fir

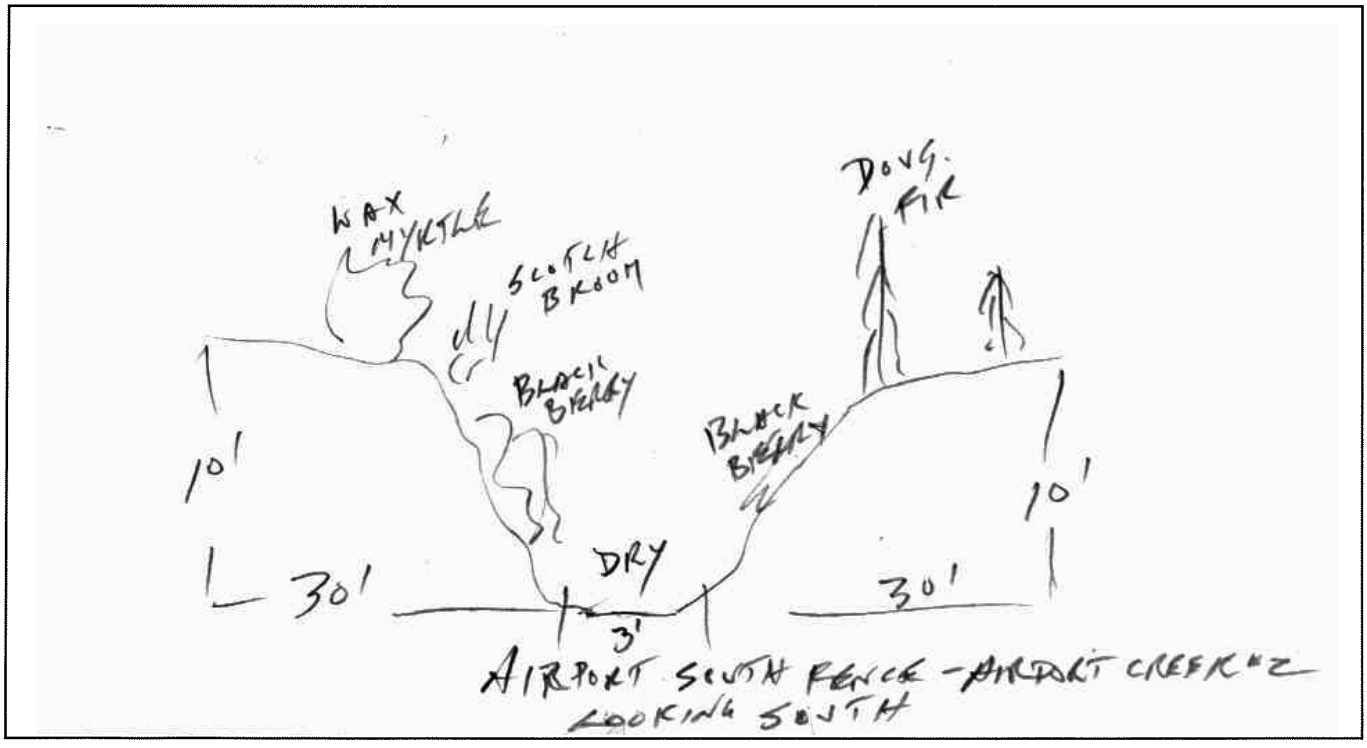
Potential tree height (PTH)/Actual Width of riparian area : 120/30L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Streambed appears usually dry.

Photos RAIR-6Sveg, RAIR-6Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-6 South	RAIR - 6
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 3 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 12-30% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Douglas Fir	Blackberry
California Wax Myrtle	Scotch Broom

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RAIR - 7 North

Date: 9/22/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

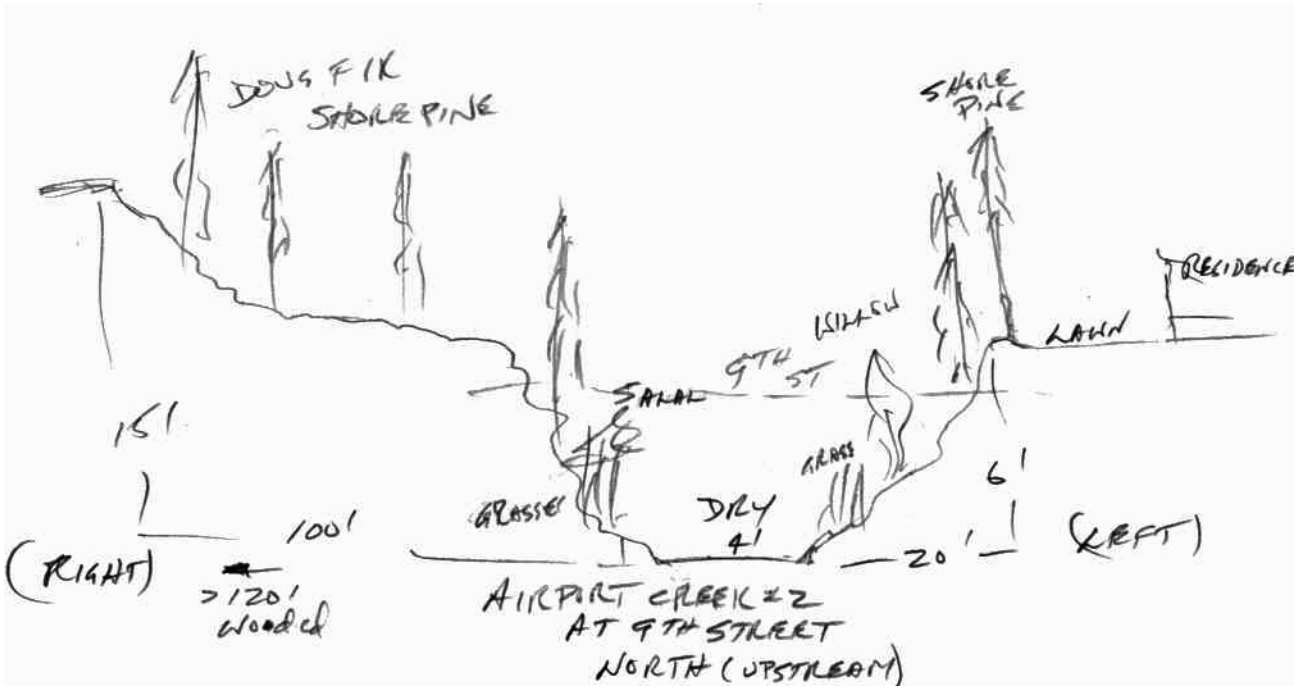
Potential tree height (PTH)/Actual Width of riparian area : 50/20L & 100R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Stream disappears under street at this location - probably into storm sewer.

Photos RAIR-7Nveg, RAIR-7Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RAIR-7 North	RAIR - 7
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 4 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Douglas Fir	Salal
Shore Pine	Grasses
Willow	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Right >5:1 (20%) ☑ Left

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RHB - 0.3

Date: 9/17/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

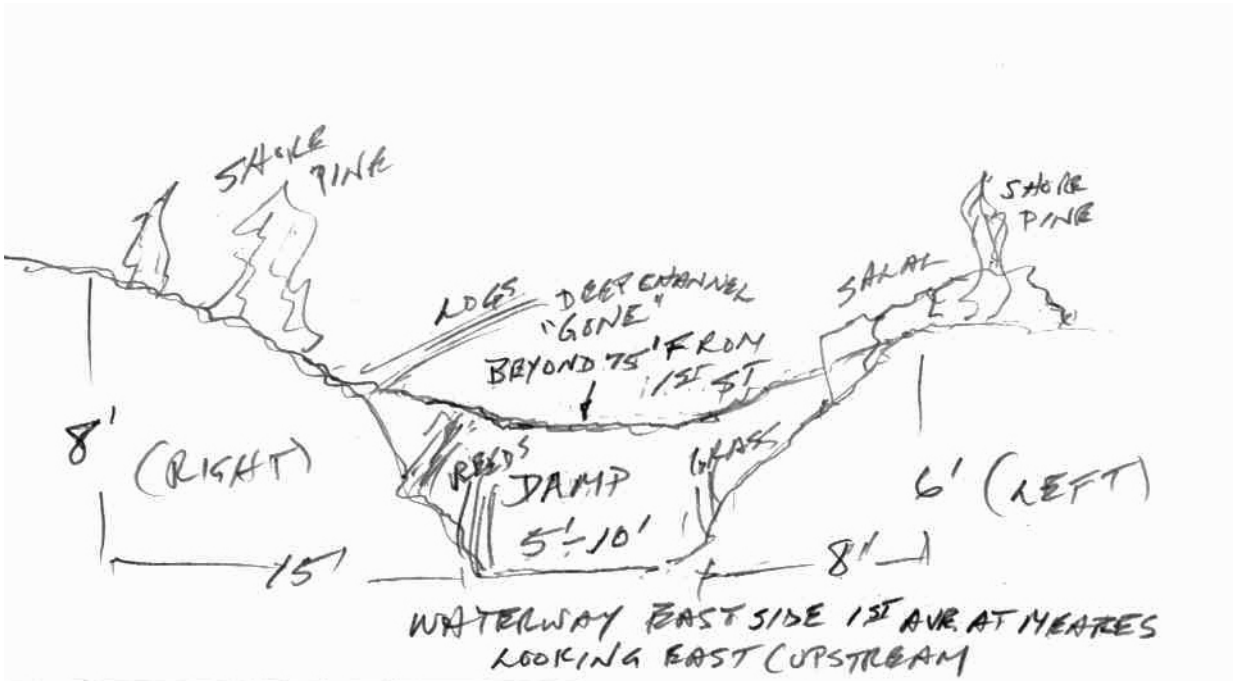
Potential tree height (PTH)/Actual Width of riparian area : 50/8L & 15 R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Waterway enters culvert to beach at 1st Avenue across from Meares Street.

Photos: At 1st Ave, RHB-.3Eveg0, RHB-.3Estr0; at 100' east, RHB-.3Estr&veg

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RHB-1	RHB-0.3
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 5 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Reeds
Salal	Grasses

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RHB - 0.6

Date: 9/17/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

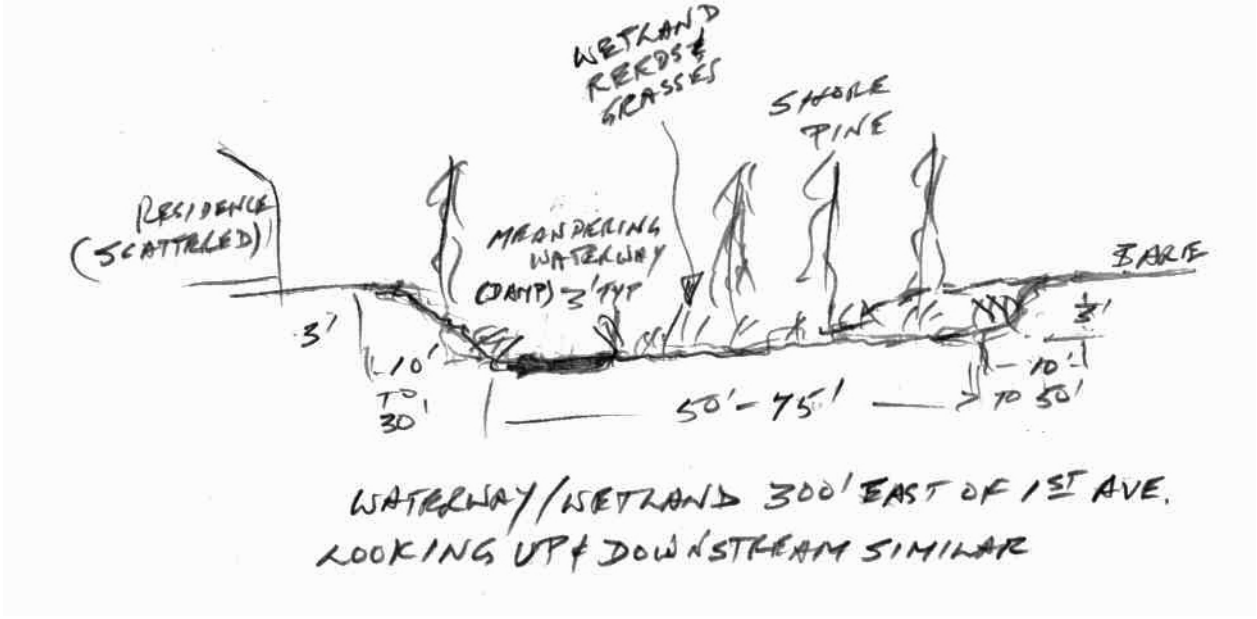
Potential tree height (PTH)/Actual Width of riparian area : 50/30L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Seasonal waterway meanders through a riparian wetland of 50' to 100' total width.

Photos RHB-.6Eveg, RHB-.6Eveg0, RHB-.6Estr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RHB-A	RHB - 0.6
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 3 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Grasses
	Reeds

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RHB - 1

Date: 9/17/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

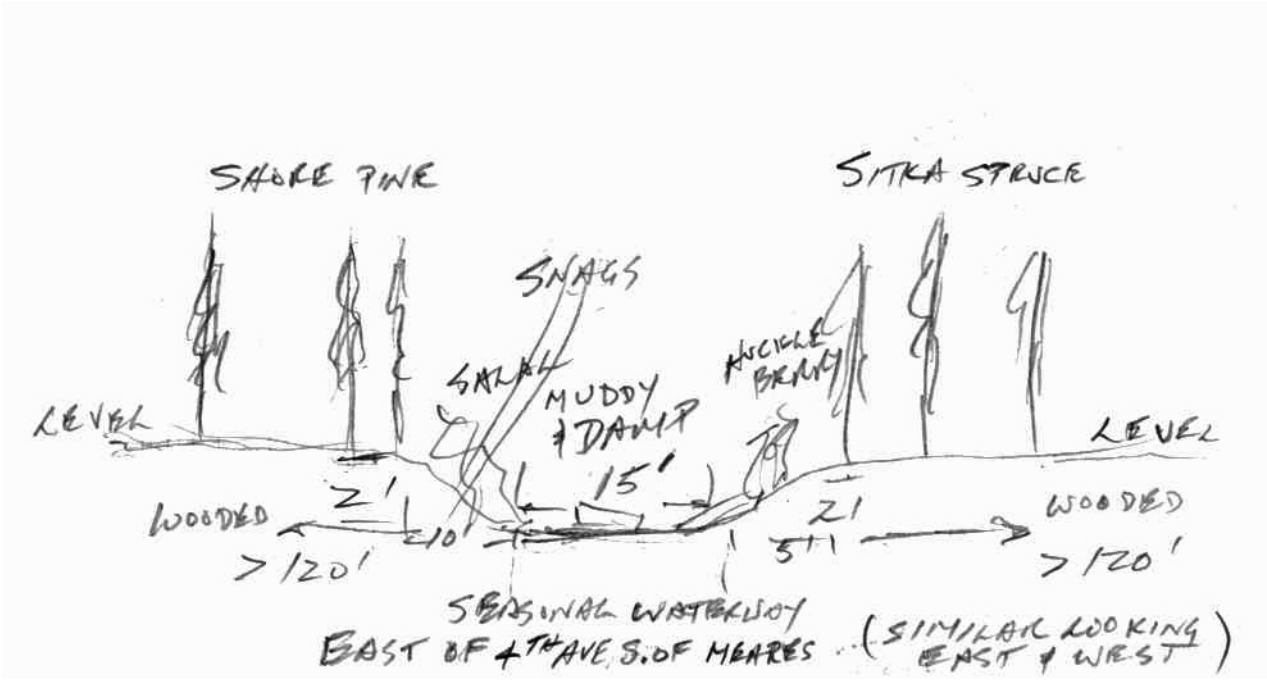
Potential tree height (PTH)/Actual Width of riparian area : 50/50L&50R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Stream bed is a wide depression in an otherwise mostly level wooded area.

Photos RHB-1Eveg0, RHB-1Estr0; and at 100' east RHB-1Eveg, RHB-1Estr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RHB-B	RHB - 1
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 15	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Yaquina loamy fine sand

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Sitka Spruce	Salal
Shore Pine	Huckleberry

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☑ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RNS - 2

Date: 10/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Western Hemlock/Sitka Spruce

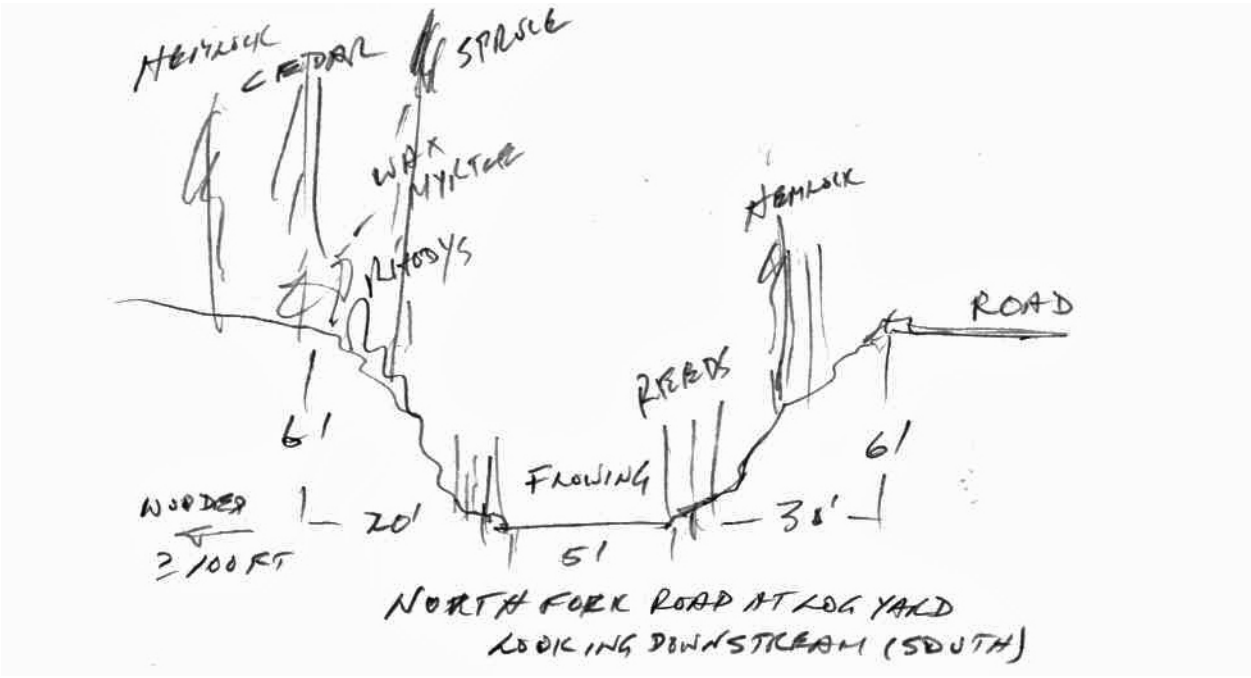
Potential tree height (PTH)/Actual Width of riparian area : 120/100L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Stream emerges from culvert (west) at this location.

Photos RNS-2veg, RNS-2str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RNS-A	RNS-2
Reach Length:		
Hydrologic Basin:	North Fork	**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 5	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☑
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Western Hemlock	Rhododendron
Western Red Cedar	Bracken Fern
Sitka Spruce	Reeds
California Wax Myrtle	
Douglas Fir	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Right >5:1 (20%) ☑ Left

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RNS - 3

Date: 10/25/2010 **Investigators:** C. Lysdale

Dominant tree species: Western Hemlock

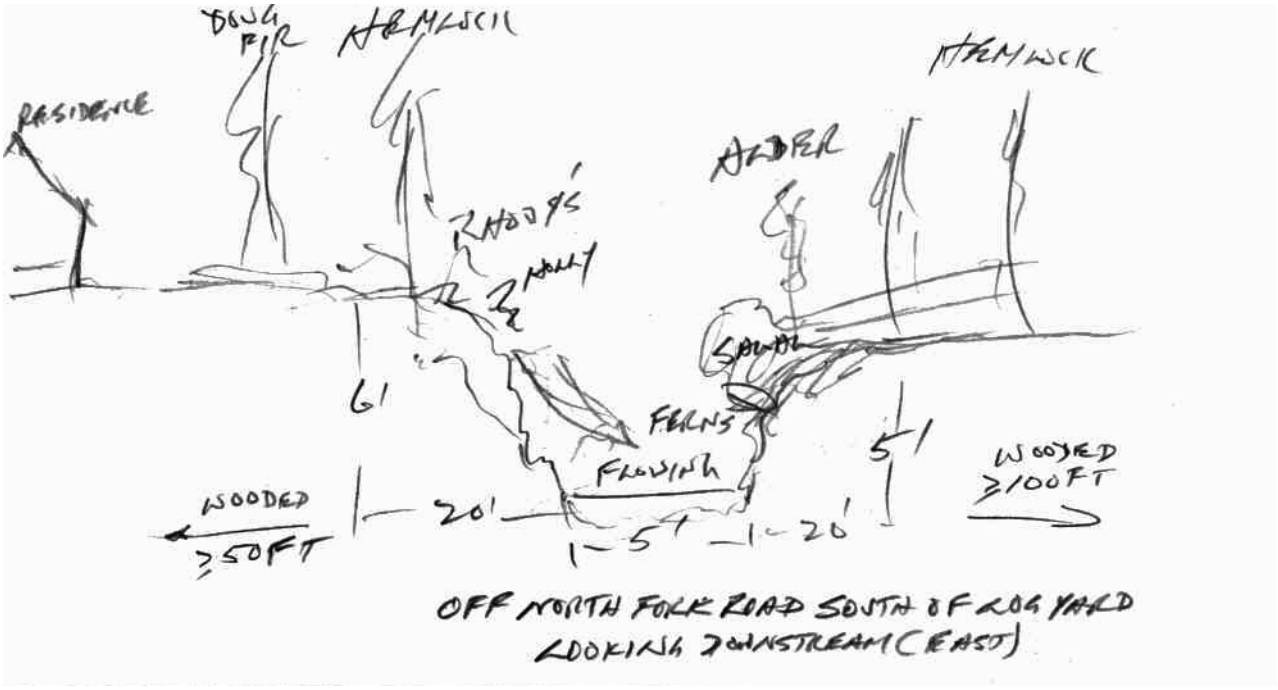
Potential tree height (PTH)/Actual Width of riparian area : 120/50L & 100R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RNS-3veg, RNS-3str

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RNS-A	RNS-3
Reach Length:		
Hydrologic Basin:	North Fork	**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 5	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☑ No ☐

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☑	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Western Hemlock	Rhododendron
Douglas Fir	Salal
Red Alder	Holly
	Bracken Fern

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☑ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RRH - 1

Date: 9/21/2010 **Investigators:** C. Lysdale

Dominant tree species: Red Alder/Shore Pine

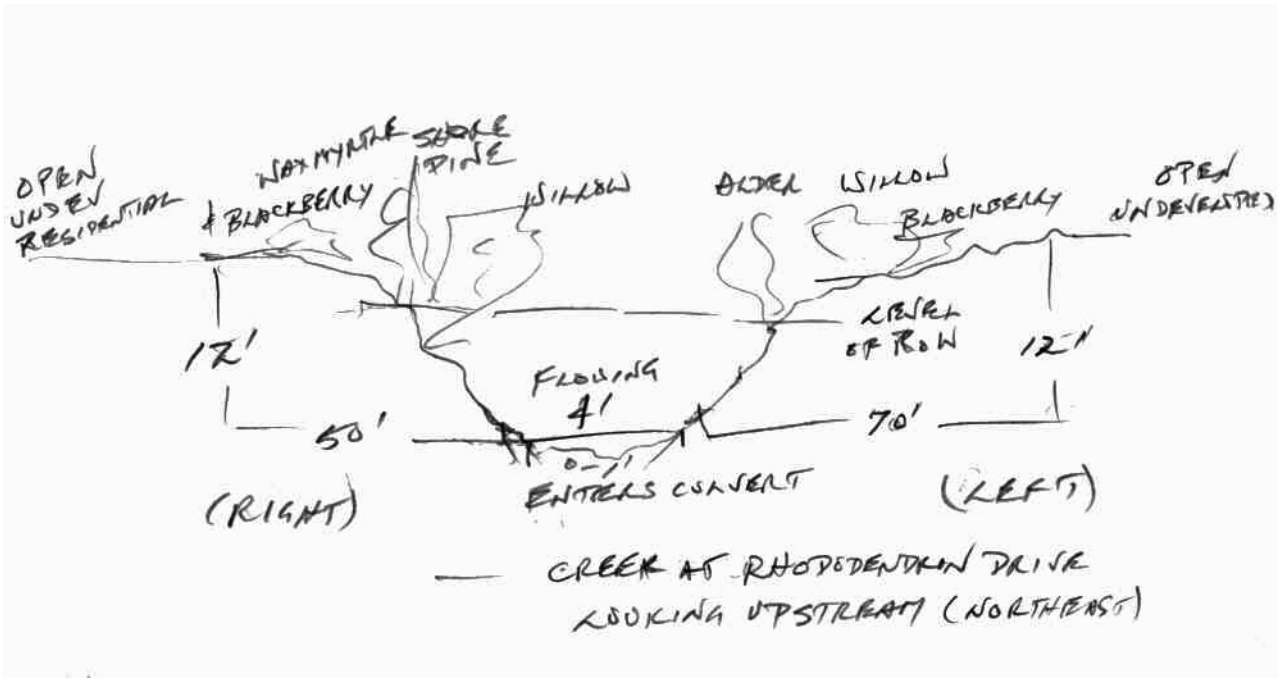
Potential tree height (PTH)/Actual Width of riparian area : 65/70L &50 R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments: Stream enters large concrete box culvert at this location.

Photos RRH-1Eveg0, RRH-1Eveg; RRH-1Estr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RRH-1NE	RRH - 1
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 4 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Waldport fine sand, 0-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☑
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	
Red Alder	
Willow	
California Wax Myrtle	
Blackberry	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ Left >5:1 (20%) ☑ Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☑ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☑ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RRH - 2SW

Date: 9/21/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine/Alder

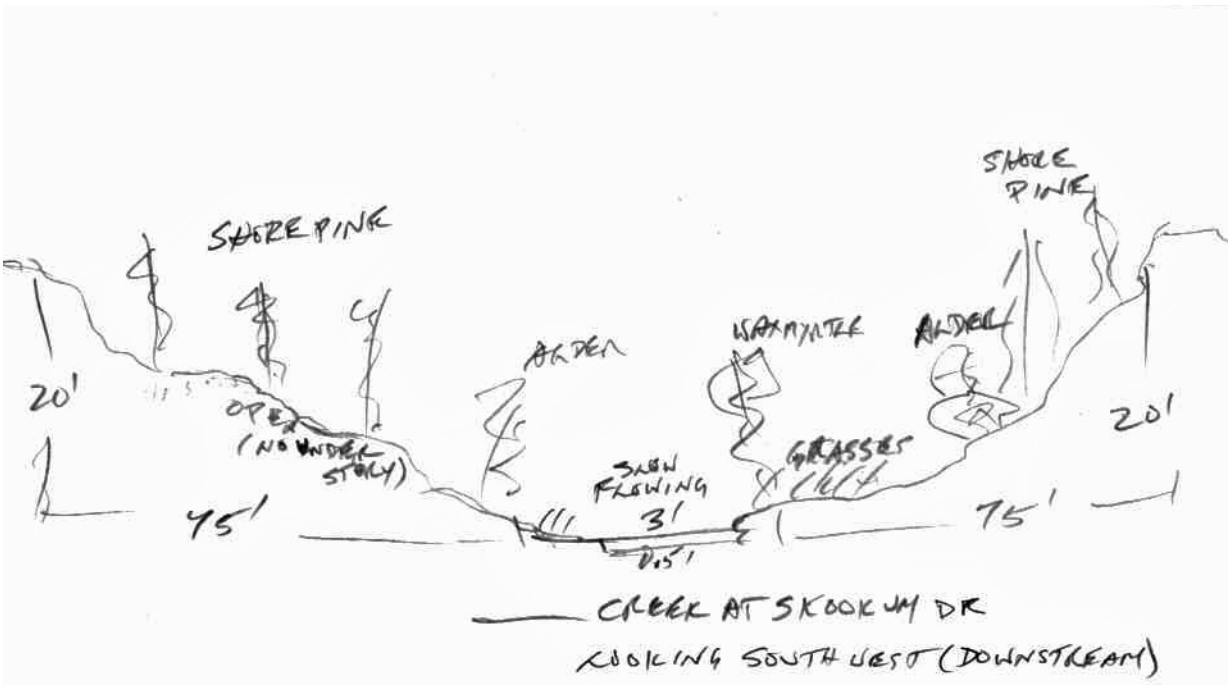
Potential tree height (PTH)/Actual Width of riparian area : 50/75L & 75 R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RRH-2Sveg, RRH-2Sstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RRH-2SW	RRH - 2
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	☑	**Width:** 3 feet
	Lake/Pond:	☐	**Width:** feet
	Wetland:	☐	**Width:** feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Dune land

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Grasses
Red Alder	
California Wax Myrtle	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☑

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☑ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RRH - 2NE

Date: 9/21/2010 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

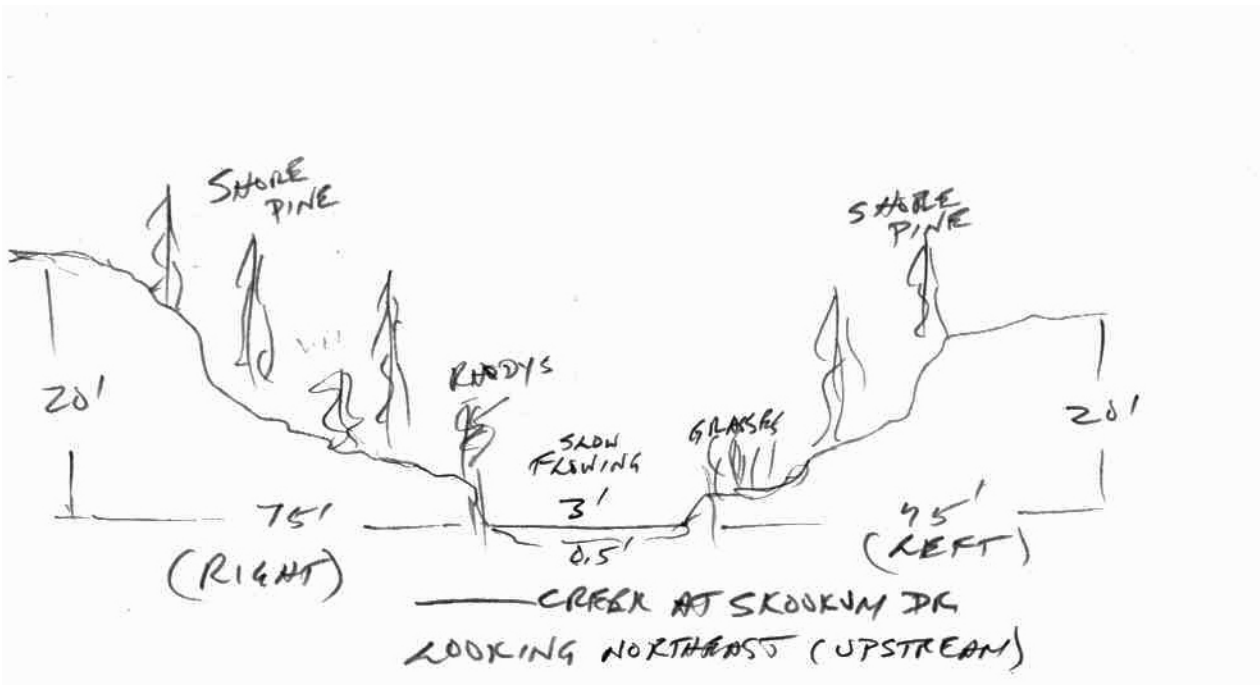
Potential tree height (PTH)/Actual Width of riparian area : 50/75L & 75 R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos RRH-2Nveg, RRH-2Nstr

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RRH-2NE	RRH - 2
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 3	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Dune land

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Grasses
Rhododendron	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☑ Left&Right

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☑ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☑ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☑ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☑ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☑

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

Riparian Width Determination

Florence LWI & Riparian Inventory

RIPARIAN CODE
RRH-3

Date: 3/1/2011 **Investigators:** C. Lysdale

Dominant tree species: Shore Pine

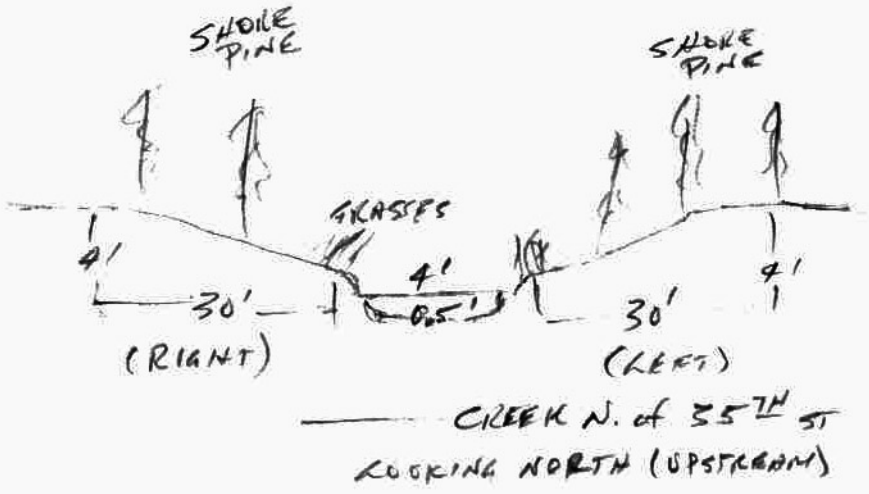
Potential tree height (PTH)/Actual Width of riparian area : 50/30L & 30R **feet**
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation ☑ **Reference site** ☐ **Code** _____

Comments:

Photos

Typical Cross Section:



Riparian Characterization Form

Florence LWI & Riparian Inventory

GENERAL INFORMATION

		Location of data point:
Riparian Code:	RRH-A	RRH-3
Reach Length:		
Hydrologic Basin:		**On-site:** ☑ **Off-Site:** ☐

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:** ☑	**Width:** 4	feet
	Lake/Pond: ☐	**Width:**	feet
	Wetland: ☐	**Width:**	feet

LWI Wetland Code:

Water present year-round: Yes ☐ No ☑

Are salmonids present in the adjacent water resource? Yes ☐ No ☑

Is the water resource listed for temperature on DEQ's 303(d) list: Yes ☐ No ☑

Within FEMA-mapped 100-year floodplain: Yes ☐ No ☑

Mapped soil series: Dune land

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☐
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☑	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
Shore Pine	Grasses

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☑ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☑ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☑

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☑

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☐ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☐ No ☑

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☑

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☑ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☐ 25% - 75% ☑ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☑

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☐ Herbaceous vegetation ☑ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☑

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☑

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☑ 1 layer or unvegetated ☐

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/25/10, 10/24/10**
Stream Name: **Munsel Creek**

Investigator(s): **CAL**
Stream Reach: **RMC-A**

Location: **Siuslaw Estuary to Hwy. 126**
Reach Length: **545 feet**

Assessment Sites: **RMC-0, RMC-1S**
Hydrologic basin: **Munsel Creek**

Water Resource(s): **Perennial N to S Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Undeveloped, Commercial
Soil – Mapped series: Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width**:** **10-50** ft Depth of OHW: **4** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** ____ Y **X** N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: **X** Y ____N, Woody Vegetation in Flood Area: **X** Y ____N
Woody Debris in Riparian Area: Present**:** **X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% **X** 26-74% ____ > 75%____.
Comments: Reach is tidal from Siuslaw estuary.
.

Riparian Vegetation

Number of Layers: 0-1 ____2 ____> 2 **X .** Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m .**

TREES	SHRUBS	HERBACEOUS
Sitka Spruce	Blackberry	Reeds
Douglas Fir	Holly	Grasses
Red Alder		Bracken Fern
Willow		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___
Riparian Width at least 30 feet: 0-10% ___11-39%___> 40% **X**

Width of Riparian Area Looking Downstream: Left: 30 feet Right: 40 feet
Total Riparian Area: Left: 0.4 acres Right: 0.5 acres

Rationale/Comments: Riparian widths are measured above the area flooded at high tide up slope to the topographical beak at level upland.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **8/25/10 – 9/26/10**

Stream Name: **Munsel Creek**

Investigator(s): **CAL**

Stream Reach: **RMC-B**

Location: **Hwy. 126 to M.C. Greenway Park**

Reach Length: **8550 feet**

Assessment Sites: **RMC-1N, RMC-2, RMC-3, RMC-4, RMC-5, RMC-6, RMC-6.3**

Hydrologic basin: **Munsel Creek**

Water Resource(s): **Perennial N to S Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Residential
Soil – Mapped series: Yaquina loamy fine sand

Channel & Riparian Characteristics:

Channel Width**:** **9** ft Depth of OHW: **3** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** **Y** Y _____ N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: ____Y **X** N
Woody Debris in Riparian Area: Present**:** **X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%_____.
Degree of Development/Human Disturbance: 0-25% **X** 26-74% ____ > 75%_____.
Comments: Stream is perennial and well shaded by large conifers and shrubs.
.

Riparian Vegetation

Number of Layers: 0-1 ____2 ____> 2 **X .** Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Salal	Grasses
Western Hemlock	Huckleberry	Reeds
Western Red Cedar	Rhododendron	
Red Alder		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19%**X** > 20%____
Riparian Width at least 30 feet: 0-10% ____11-39%____> 40%**X**

Width of Riparian Area Looking Downstream: Left: 50 feet Right: 50 feet
Total Riparian Area: Left: 9.8 acres Right: 9.8 acres

Rationale/Comments: Reach lies entirely within a residential area. Riparian widths are set from TOB to the topographical break to level upland, which is also typically the boundary of established residential development.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/26/10, 10/28/10**

Stream Name: **Munsel Creek**

Investigator(s): **CAL**

Stream Reach: **RMC-C**

Location: **M.C. Greenway Park to M.C. Loop at 35th Street**

Reach Length: **2400 feet**

Assessment Sites: **RMC-6.3, RMC-6.5**

Hydrologic basin: **Munsel Creek**

Water Resource(s): **Perennial N to S Stream**, Wetland **#6**, _____ Lake
Adjacent Land-Use: Residential, Undeveloped
Soil – Mapped series: Yaquina loamy fine sand

Channel & Riparian Characteristics:

Channel Width**: Var.** ft Depth of OHW: **1** ft Man-made Channel: ___ Y **X** N
Shaded Summer Midday**: X** Y ____ N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: **X** Y ___N, Woody Vegetation in Flood Area: **X** Y ___N
Woody Debris in Riparian Area: Present**: X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% **X** 26-74% ____ > 75%____.
Comments: Stream flow primarily passes through wetland LWI - 6 with a minor part passing through a side channel in a residential area (see RMC-Cs).

Riparian Vegetation

Number of Layers: 0-1 ____2 ____> 2 **X .** Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m .**

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Salal	Grasses
Red Alder	Huckleberry	Reeds
Shore Pine		
Willow		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% **X** 11-19%____> 20%____
Riparian Width at least 30 feet: 0-10% ____11-39% **X** > 40%____

Width of Riparian Zone Looking Downstream: Left: 50 feet Right: 50 feet
Total Area of Riparian Zone: 33.5 acres

Rationale/Comments: The riparian corridor for this reach includes a large wetland with no definite stream bank or topographical break on the eastern (left) side . The stream splits over several seasonal routes within the wetland and re-converges near RMC-6.3. The right (west) riparian width is from TOB to the topographical break at level upland; the left (east) width is based on PTH for Shore Pine.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **3/13/12, 3/25/12**

Stream Name: **Munsel Creek**

Investigator(s): **C. Lysdale with STEP, ODFW, and NMFS**

Stream Reach: **RMC-Cs (side channel)**

Location: **Coast Village, Florentine Estates**

Reach Length: **1900 feet**

Assessment Sites: **RMC-6.7, RMC-6.8, RMC-6.9**

Hydrologic basin: **Munsel Creek**

Water Resource(s): **Intermittent N to S Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Residential,
Soil – Mapped series: Waldport fine sand, Yaquina loamy fine sand

Channel & Riparian Characteristics:

Channel Width**: 5** ft Depth of OHW: **1** ft Man-made Channel: ___ Y **X** N
Shaded Summer Midday**: X** Y ____ N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ___ Y **X** N, Woody Vegetation in Flood Area: ___ Y ___ N
Woody Debris in Riparian Area: Present**: X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____ > 25%____.
Degree of Development/Human Disturbance: 0-25% ___ 26-74% **X** > 75%____.
Comments: The channel is in a residential area but riparian zone is mostly well vegetated. The stream passes through culverts at 7 locations which are all fish passable, plus a wooden flume across one residential lot.

Riparian Vegetation

Number of Layers: 0-1 ____2 **X** > 2 **.** Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Salal	Grasses
Red Alder	Huckleberry	Reeds
Shore Pine	Rhododendron	
Calif. Waxmyrtle		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ____11-19%___> 20% **X**
Riparian Width at least 30 feet: 0-10% **X** 11-39%___> 40%____

Width of Riparian Zone Looking Downstream: Left: 25 feet Right: 25 feet
Total Riparian Area: Left: 1.1 acres Right: 1.1 acres

Rationale/Comments: Lysdale visited site with above agency staff on 3/13/12 and Lysdale returned on 3/25/12 to complete Reach Summary. This reach is a side channel off Munsel Creek which passes through heavy residential development and has low or no flow in summer. The 25-ft riparian width L and R is typical from TOB to a topographical break adjacent to streets and/or structures. All 3 agencies concurred in writing that Munsel Creek and the side channel are both considered as critical habitat for Oregon Coast coho salmon (a federally listed threatened species) and are important to the conservation and recovery of this species and recommended that the riparian area be declared as significant and protected with a 50-foot safe harbor riparian width.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/14/10 - 10/28/10**

Stream Name: **Munsel Creek**

Investigator(s): **CAL**

Stream Reach: **RMC-D**

Location: **M.C. Loop at 35th St to Munsel Lake outfall into Munsel Creek**

Reach Length: **8350 feet**

Assessment Sites: **RMC-6.5, RMC-6.6, RMC-7**

Hydrologic basin: **Munsel Creek**

Water Resource(s): **Perennial N to S Stream**
Adjacent Land-Use: Residential
Soil – Mapped series: Yaquina loamy fine sand/Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width**: 6** ft Depth of OHW: **2** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**: X** Y ____ N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: ____Y **X** N
Woody Debris in Riparian Area: Present**: X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% ___ 26-74% **X** > 75%____.
Comments: Stream section is perennial and well shaded by large conifers and shrubs.
.

Riparian Vegetation

Number of Layers: 0-1 ___2 ____> 2 **X .** Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Salal	Grasses
Western Hemlock	Huckleberry	Reeds
Red Alder		
Shore Pine		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___
Riparian Width at least 30 feet: 0-10% ___11-39%___> 40% **X**

Width of Riparian Area Looking Downstream: Left: 40 feet Right: 40 feet
Total Riparian Area: Left: 7.7 acres Right: 7.7 acres

Rationale/Comments: Reach lies mostly within developed residential areas. Riparian widths are set as distance from TOB to topographical break at level upland and/or boundary with established residential development.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/14/10 - 3/28/11**

Stream Name: **Munsel Lake (West)**

Investigator(s): **CAL**

Stream Reach: **RMC-D1**

Location: **Developed west shoreline of Munsel Lake**

Reach Length: **4750 feet**

Assessment Sites: **RMC-7.5, RMC-7.7**

Hydrologic basin: **Munsel Creek**

Water Resource(s): **Munsel Lake**
Adjacent Land-Use: Residential
Soil – Mapped series: Yaquina loamy fine sand/Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width**: N/A** ft Depth of OHW: **N/A** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** ___ Y **X** N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: ____Y **X** N
Woody Debris in Riparian Area: Present**:** ___ Not Present**: X .**
Extent of Impervious Surface: 0-10% **X** 11-24% ____ > 25%____.
Degree of Development/Human Disturbance: 0-25% ___ 26-74% **X** > 75%____.
Comments: Lakeshore is developed residential and includes a public boat launch..
.

Riparian Vegetation

Number of Layers: 0-1 ___2 **X** > 2 **.** Hang over water: ___ Yes **X** No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Salal	Grasses
Shore Pine	Huckleberry	Reeds
Red Alder		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___
Riparian Width at least 30 feet: 0-10% ___11-39%___ > 40% **X**

Width of Riparian Area: 50 feet
Total Riparian Area: 5.5 acres

Rationale/Comments: Reach lies mostly within developed residential areas. Riparian width is set as typical distance from lakeshore to topographical break with residential development (south), and PTH of dominant Shore Pine species (north)

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/14/10 - 9/20/10** Stream Name: **Munsel Creek & Lake, Ackerley Creek & Lake, Clear Lake, Collard Lake**

Investigator(s): **CAL** Stream Reach: **RMC-E Left**

Location: **Munsel Lake through half of Collard Lake** Reach Length: **28,700 feet**

Assessment Sites: **RMC-8, RMC-9, RMC-10, RMC-11, RMC-12, RMC-13** Hydrologic basin: **Munsel Creek**

Water Resource(s): **Munsel Lake, Ackerley Lake, Clear Lake, south half of Collard Lake, and Ackerley Creek**

Adjacent Land-Use: Left (east side) forestry

Soil – Mapped series: Left (east) Preacher-Bohannon-Slickrock complex;

Channel & Riparian Characteristics:

Channel Width**: N/A** ft Depth of OHW: **N/A** ft Man-made Channel: ____ Y **X** N

Shaded Summer Midday**:** ____ Y **X** N Water Erosion Hazard: ____Hi **X** Lo

Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: ____Y **X** N

Woody Debris in Riparian Area: Present**: X** Not Present**:** ____.

Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.

Degree of Development/Human Disturbance: 0-25% **X** 26-74% ___ > 75%____.

Comments: This reach includes several lakes and short interconnecting waterways. The east side of the lakes and waterways are forested with prime riparian zones; the west shorelines are primarily sand dunes with some forested lowland.

Riparian Vegetation

Number of Layers: 0-1 ___2 **X** > 2 ___. Hang over water: **X** Yes ____ No

Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Huckleberry	Reeds
Western Hemlock	Salal	Grasses
Red Alder	Rhododenron	Bracken Fern
California Wax Myrtle		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___

Riparian Width at least 30 feet: 0-10% ___11-39%___> 40% **X**

Width of Riparian Area: 120 feet

Total Riparian Area: 79.1 acres

Rationale/Comments: The riparian widths for forested sections of this reach are set at the Potential Tree Height (PTH).

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/14/10 - 9/20/10** Stream Name: **Munsel Creek & Lake, Ackerley Creek & Lake, Clear Lake, Collard Lake**

Investigator(s): **CAL** Stream Reach: **RMC-E Right**

Location: **Munsel Lake through half of Collard Lake** Reach Length: **10,050 feet**

Assessment Sites: **RMC-8, RMC-9, RMC-10, RMC-11, RMC-12, RMC-13** Hydrologic basin: **Munsel Creek**

Water Resource(s): **Munsel Lake, Ackerley Lake, Clear Lake, south half of Collard Lake, and Ackerley Creek**

Adjacent Land-Use: Right (west side) undeveloped

Soil – Mapped series: Right (west) Dune land

Channel & Riparian Characteristics:

Channel Width**: N/A** ft Depth of OHW: **N/A** ft Man-made Channel: ____ Y **X** N

Shaded Summer Midday**:** ____ Y **X** N Water Erosion Hazard: **X** Hi ___Lo

Flood Prone Areas: ___Y **X** N, Woody Vegetation in Flood Area: ____Y **X** N

Woody Debris in Riparian Area: Present**:** ____ Not Present**: X .**

Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.

Degree of Development/Human Disturbance: 0-25% **X** 26-74% ___ > 75%____.

Comments: This reach includes several lakes and short interconnecting waterways. The west shorelines are primarily sand dunes with some forested lowland.

Riparian Vegetation

Number of Layers: 0-1 **X** 2 ___> 2 ___. Hang over water: ___ Yes **X** No

Dominant Layer: **Bare sand** Dominant TOB: **Bare sand .**

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Huckleberry	Reeds
Western Hemlock	Salal	Grasses
Red Alder		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___

Riparian Width at least 30 feet: 0-10% ___11-39% **X** > 40%___

Width of Riparian Area: 15 ft at dunes, 120 ft lowlands

Total Riparian Area: 14.5 acres

Rationale/Comments: For the west (right) side of the northern lakes, barren sand dunes reach to the shoreline. The riparian widths for forested lowland sections are set at the Potential Tree Height (PTH).

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/15/10**
Stream Name: **Collard Lake**

Investigator(s): **CAL**
Stream Reach: **RMC-F Left**

Location: **North half of Collard Lake**
Reach Length: **3950 feet**

Assessment Sites: **RMC-13**
Hydrologic basin: **Munsel Creek**

Water Resource(s): **North half of Collard Lake**
Adjacent Land-Use: Left (east side) residential
Soil – Mapped series: Bullards-Ferrelo loams, 12-30% slopes

Channel & Riparian Characteristics:

Channel Width**: N/A** ft Depth of OHW: **N/A** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** ___ Y **X** N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ___ Y **X** N, Woody Vegetation in Flood Area: ____Y **X** N
Woody Debris in Riparian Area: Present**:**____ Not Present: **X** .
Extent of Impervious Surface: 0-10% ___11-24% **X** > 25%____.
Degree of Development/Human Disturbance: 0-25% ___ 26-74% **X** > 75%____.
Comments: This reach covers the north half of Collard Lake.
The east and north shorelines are developed as residential.

Riparian Vegetation

Number of Layers: 0-1 ___2 **X** > 2 ___. Hang over water: ____ Yes **X** No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Salal	Grasses
Western Hemlock	Huckleberry	
Shore Pine		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___
Riparian Width at least 30 feet: 0-10% ___11-39%___ > 40% **X**

Width of Riparian Area: 50 feet
Total Riparian Area: 4.5 acres

Rationale/Comments: The riparian width is set as typical distance from the lakeshore to established residential development and structures.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/15/10**
Stream Name: **Collard Lake**

Investigator(s): **CAL**
Stream Reach: **RMC-F Right**

Location: **North half of Collard Lake**
Reach Length: **1630 feet**

Assessment Sites: **RMC-13**
Hydrologic basin: **Munsel Creek**

Water Resource(s): **North half of Collard Lake**
Adjacent Land-Use: Right (west side) undeveloped.
Soil – Mapped series: Bullards-Ferrelo loams, 12-30% slopes

Channel & Riparian Characteristics:

Channel Width**:** **N/A** ft Depth of OHW: **N/A** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** ___ Y **X** N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ___ Y **X** N, Woody Vegetation in Flood Area: ____Y **X** N
Woody Debris in Riparian Area: Present**:** **X** Not Present**:** ___.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% **X** 26-74% ___ > 75%____.
Comments: This reach covers the north half of Collard Lake.
The west shore is wooded and undeveloped.

Riparian Vegetation

Number of Layers: 0-1 ___2 **X** > 2 ___. Hang over water: ___ Yes **X** No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Douglas Fir	Salal	Grasses
Western Hemlock	Huckleberry	
Shore Pine		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___
Riparian Width at least 30 feet: 0-10% ___11-39%___> 40% **X**

Width of Riparian Area: **120 feet**
Total Riparian Area: **4.5 acres**

Rationale/Comments: The riparian widths for this forested reach are set at the Potential Tree Height (PTH).

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **8/25/10 – 10/24/10**

Stream Name: **Airport 1**

Investigator(s): **CAL**

Stream Reach: **RAIR-A**

Location: **Oak at 31st to RoW at 12th & Greenwood**

Reach Length: **8650 feet**

Assessment Sites: **RAIR-0.3, RAIR-0.6, RAIR-1, RAIR-1.5, RAIR-2N**

Hydrologic basin: **Airport**

Water Resource(s): **Intermittent N to S Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Undeveloped, airport, residential
Soil – Mapped series: Yaquina loamy fine sand/Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width: **5** ft Depth of OHW: **2** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday: ____ Y **X** N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: _____Y **X** N
Woody Debris in Riparian Area: Present:_____ Not Present**:** **X** .
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% ____ 26-74% **X** > 75%____.

Comments: The channel for this reach appears to have been cleared and straightened over much of its length.

Riparian Vegetation

Number of Layers: 0-1 ___2 **X** > 2 ___. Hang over water: ___ Yes **X** No
Dominant Layer: **Herb./Woody < 1m**. Dominant TOB: **Herb./Woody < 1m** .

TREES	SHRUBS	HERBACEOUS
Shore Pine	Salal	Grasses
Douglas Fir	Huckleberry	
Red Alder	Rhododendron	

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19%___> 20%**X**
Riparian Width at least 30 feet: 0-10% **X** 11-39%___> 40%___

Width of Riparian Area Looking Downstream: Left: 20 feet Right: 20 feet
Total Riparian Area: Left: 4.0 acres Right: 4.0 acres

Rationale/Comments: Riparian widths are typically set from TOB to a topographical break at level upland.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **8/25/10 – 10/24/10**

Stream Name: **Airport 1**

Investigator(s): **CAL**

Stream Reach: **RAIR-B**

Location: **RoW at 12th & Greenwood to Siuslaw Estuary at Sewage Plant**

Reach Length: **3000 feet**

Assessment Sites: **RAIR-2S, RAIR-3, RAIR-4, RAIR-5**

Hydrologic basin: **Airport**

Water Resource(s): **Intermittent N to S Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Undeveloped, residential
Soil – Mapped series: Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width: **5** ft Depth of OHW: **2** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** **X** Y ____ N Water Erosion Hazard: _____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: _____Y **X** N
Woody Debris in Riparian Area: Present: **X** Not Present: ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% **X** 26-74% ___ > 75%____.

Comments: The reach is heavily vegetated with large trees and dense understory over most of its length.

Riparian Vegetation

Number of Layers: 0-1 ___2 ___> 2 **X** . Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** . Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Red Alder	Salal	Grasses
Sitka Spruce	Huckleberry	
Western Hemlock	Rhododendron	
Douglas Fir		
California Wax Myrtle		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19% **X** > 20%___
Riparian Width at least 30 feet: 0-10% ___11-39%___> 40% **X**

Width of Riparian Area Looking Downstream: Left: 65 feet Right: 65 feet
Total Riparian Area: Left: 4.5 acres Right: 4.5 acres

Rationale/Comments: Riparian widths are set by the Potential Tree Height (PTH) for the dominant Red Alder species.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **8/25/10 – 10/24/10**

Stream Name: **Airport 2**

Investigator(s): **CAL**

Stream Reach: **RAIR-C**

Location: **Airport south fence to 9th Street at Ivy RoW**

Reach Length: **1125 feet**

Assessment Sites: **RAIR-6, RAIR-7**

Hydrologic basin: **Airport**

Water Resource(s): **Intermittent N to S Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Undeveloped, residential
Soil – Mapped series: Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width**: 3** ft Depth of OHW: **1** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday: ____ Y **X** N Water Erosion Hazard: _____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: _____Y **X** N
Woody Debris in Riparian Area: Present:____ Not Present**: X .**
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% **X** 26-74% ___ > 75%____.

Comments: North end of channel is mostly clear of trees and overgrown with noxious non-native shrubs.

Riparian Vegetation

Number of Layers: 0-1 ___2 **X** > 2 ___. Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m**. Dominant TOB: **Herb. < 1m .**

TREES	SHRUBS	HERBACEOUS
Shore Pine	Blackberry	Grasses
Douglas Fir	Scotch Broom	
California Wax Myrtle		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19%___> 20%**X**
Riparian Width at least 30 feet: 0-10% ___11-39%**X** > 40%___

Width of Riparian Area Looking Downstream: Left: 30 feet Right: 30 feet
Total Riparian Area: Left: 0.8 acres Right: 0.8 acres

Rationale/Comments: Riparian widths are typically set from TOB to a topographical break. Streambed is dry much of the year.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/17/10**

Stream Name: **Heceta Beach**

Investigator(s): **CAL**

Stream Reach: **RHB-A**

Location: **1st Avenue at Meares St to 4th Avenue south of Meares**

Reach Length: **730 feet**

Assessment Sites: **RHB-0.3, RHB-0.6**

Hydrologic basin: **Heceta Beach**

Water Resource(s): **Intermittent E to W Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Undeveloped, residential
Soil – Mapped series: Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width**:** **5** ft Depth of OHW: **1** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** **X** Y ____ N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: _____Y **X** N
Woody Debris in Riparian Area: Present**:** **X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% ___ 26-74% **X** > 75%____.
Comments: Waterway meanders through a small wetland area.

Riparian Vegetation

Number of Layers: 0-1 ____2 **X** > 2 ___. Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Shore Pine	Salal	Grasses
		Reeds

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ____11-19% **X** > 20%___
Riparian Width at least 30 feet: 0-10% **X** 11-39%____> 40%__

Width of Riparian Area Looking Downstream: Left: 20 feet Right: 20 feet
Total Riparian Area: Left: 0.3 acres Right: 0.3 acres

Rationale/Comments: Riparian widths are typically from stream TOB or the edge of wetland to a topographic break.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/17/10**

Stream Name: **Heceta Beach**

Investigator(s): **CAL**

Stream Reach: **RHB-B**

Location: **4th Avenue south of Meares to wetland 0.2 miles east**

Reach Length: **860 feet**

Assessment Sites: **RHB-1**

Hydrologic basin: **Heceta Beach**

Water Resource(s): **Intermittent E to W Stream**, Wetland **#25**, _____ Lake
Adjacent Land-Use: Undeveloped
Soil – Mapped series: Yaquina loamy fine sand

Channel & Riparian Characteristics:

Channel Width**:** **10** ft Depth of OHW: **1** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** **X** Y ____ N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: **X** Y ___N, Woody Vegetation in Flood Area: **X** Y ___N
Woody Debris in Riparian Area: Present**:** **X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% **X** 26-74% ____ > 75%____.
Comments: Wide channel with low banks, surrounding terrain is mostly level. Stream is dry part of year.

.

Riparian Vegetation

Number of Layers: 0-1 ____2 **X** > 2 ___. Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Shore Pine	Salal	Grasses
Sitka Spruce	Huckleberry	

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% **X** 11-19%____> 20%___
Riparian Width at least 30 feet: 0-10% ____11-39%____> 40%**X**

Width of Riparian Area Looking Downstream: Left: 50 feet Right: 50 feet
Total Riparian Area: Left: 1.0 acres Right: 1.0 acres

Rationale/Comments: No topographic break outside of channel. Riparian width set by Potential Tree Height (PTH) of dominant Shore Pine species.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **9/21/10**

Stream Name: **Rhododendron**

Investigator(s): **CAL**

Stream Reach: **RRH-A**

Location: **Rhododendron Dr. at Marine Manor to Royal St Georges at Troon Circle**

Reach Length: **2550 feet**

Assessment Sites: **RRH-1, RRH-2, RRH-3**

Hydrologic basin: **Rhododendron**

Water Resource(s): **Intermittent NE to SW Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Undeveloped, residential
Soil – Mapped series: Dune land

Channel & Riparian Characteristics:

Channel Width**:** **3** ft Depth of OHW: **1** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**:** **X** Y ____ N Water Erosion Hazard: **X** Hi ___Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: _____Y **X** N
Woody Debris in Riparian Area: Present:____ Not Present**:** **X** .
Extent of Impervious Surface: 0-10% **X** 11-24% ____> 25%____.
Degree of Development/Human Disturbance: 0-25% ___ 26-74% **X** > 75%____.
Comments: Understory is not dense over most of reach.

Riparian Vegetation

Number of Layers: 0-1 ___2 **X** > 2 ___. Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Herb. < 1m** .

TREES	SHRUBS	HERBACEOUS
Shore Pine	Rhododendron	Grasses
Red Alder	Blackberry	
California Wax Myrtle		
Willow		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19%___> 20%**X**
Riparian Width at least 30 feet: 0-10% ___11-39%___> 40%**X**

Width of Riparian Area Looking Downstream: Left: 50 feet Right: 50 feet
Total Riparian Area: Left: 2.9 acres Right: 2.9 acres

Rationale/Comments: Riparian widths are set at the Potential Tree Height (PTH) of the dominant Shore Pine tree species.

REACH SUMMARY -- Florence Riparian Inventory

Date(s) of field work: **10/25/10**

Stream Name: **North Fork 1**

Investigator(s): **CAL**

Stream Reach: **RNS-A**

Location: **North Fork Road at logging yard to North Fork Siuslaw Estuary**

Reach Length: **950 feet**

Assessment Sites: **RNS-2, RNS-3**

Hydrologic basin: **North Fork Siuslaw**

Water Resource(s): **Intermittent N to S Stream**, Wetland _____, _____ Lake
Adjacent Land-Use: Commercial
Soil – Mapped series: Waldport fine sand, 0-12% slopes

Channel & Riparian Characteristics:

Channel Width**: 5** ft Depth of OHW: **1** ft Man-made Channel: ____ Y **X** N
Shaded Summer Midday**: X** Y ____ N Water Erosion Hazard: ____Hi **X** Lo
Flood Prone Areas: ____Y **X** N, Woody Vegetation in Flood Area: _____Y **X** N
Woody Debris in Riparian Area: Present**: X** Not Present**:** ____.
Extent of Impervious Surface: 0-10% ____11-24% **X** > 25%____.
Degree of Development/Human Disturbance: 0-25% ____ 26-74% **X** > 75%____.
Comments: Reach is wooded and well shaded.
.

Riparian Vegetation

Number of Layers: 0-1 ____2 ____> 2 **X .** Hang over water: **X** Yes ____ No
Dominant Layer: **Woody > 1m** Dominant TOB: **Woody > 1m** .

TREES	SHRUBS	HERBACEOUS
Sitka Spruce	Rhododendron	Grasses
Western Hemlock	Salal	Reeds
Western Red Cedar	Holly	Bracken Fern
California Wax Myrtle		
Red Alder		

Riparian Dimensions: (Estimated – Looking Downstream, TOB = Top of Bank)

Average Slope in Riparian Area: 0-10% ___11-19%____> 20%**X**
Riparian Width at least 30 feet: 0-10% ____11-39%____> 40%**X**

Width of Riparian Area Looking Downstream: Left: 40 feet Right: 40 feet
Total Riparian Area: Left: 0.9 acres Right: 0.9 acres

Rationale/Comments: Topographical breaks are not definitive except at road. Large trees provide favorable riparian effects out to the boundary with extensive commercial/residential development.