

ODFW AQUATIC INVENTORY PROJECT
OREGON PLAN FOR SALMON & WATERSHEDS
STREAM RESTORATION HABITAT REPORT

STREAM: Brush Creek Site B (S-191)
BASIN: Pacific Ocean
SURVEY TYPE: Pre-Tx
DATE: July 2, 2003
SURVEY CREW: Nate Davis, Lucas Lawrence
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 27.5 km²
USGS MAPS: Port Orford
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Brush Creek Site B habitat survey extended 502 meters. The channel was constrained by terraces and roads in a broad valley floor. The average valley width index was 10.2 (range: 1.0-20.0). Land use for the reach was state park and large (30-50 cm dbh) trees. The average unit gradient was 0.9 percent. Riffles (60%) and scour pools (31%) dominated stream habitat. Gravel (68%) dominated stream substrate. Wood volume was very low at 3.9 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

REACH 1

T33S-R15W-S25SE

REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index 10.2		VWI Range: 1 - 20	

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	100%		

Channel Characteristics

Type	Length (m)	Area (m2)	Dry Units
Primary	502	3,125	0
Secondary	109	258	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	5.2	Width	9.1	13.2	16.9
Depth	0.49	Height	0.6	1.2	1.4
		W:D ratio	16.3	Entrenchment	1.5

Stream Flow Type: MF Water temp (C): 15.0 - 15.0
 Avg. Unit Gradient: 0.9% Habitat Units/100m: 7.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	GN	LT
Riparian Vegetation:	D15	S

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding:	0%	Reach avg: 73%
Undercut Banks:	12%	Range: 36 - 97

Large Wood Debris

	Total	Total / 100m
All pieces (>=3m x 0.15m):	49	9.8
Volume (m ³):	20	3.9
Key pieces (>=10m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

BRUSH CREEK SITE B PRE-TX (S-191)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/2/03

REACH 1		T33S-R15W-S25SE					REACH 1						
HABITAT DETAIL													
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Large Boulders (#>0.5m)	Substrate						
							Percent Wetted Area						
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
POOL-ALCOVE	1	13	1.3	0.45	17	0	25	75	0	0	0	0	
POOL-BACKWATER	7	61	3.1	0.61	189	4	14	22	58	4	1	0	
POOL-ISOLATED	2	10	1.5	0.18	15	0	29	62	10	0	0	0	
POOL-LATERAL SCOUR	11	155	6.5	0.82	1,011	44	1	18	72	3	2	5	
POOL-PLUNGE	1	5	5.0	0.55	26	0	0	20	80	0	0	0	
RAPID/BOULDERS	1	14	3.8	0.30	51	15	0	18	73	9	0	0	
RIFFLE	13	257	6.2	0.27	1,549	21	1	14	76	8	0	2	
RIFFLE W/ POCKETS	4	88	5.1	0.29	481	4	0	17	80	2	1	0	
STEP/COBBLE	2	9	5.0	0.70	44	0	0	10	77	14	0	0	
STEP/LOG	1	0	4.8	0.01	1	0	0	0	90	10	0	0	
Total:	43	611	5.2	0.49	3,383	88	Avg	5	20	68	5	1	2

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		109
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	10	84	2.6	0.51	220	6.51%	4	1.8	
Scour Pools	12	160	6.4	0.80	1,037	30.65%	44	4.2	
Glides	0	0			0	0.00%	0	0.0	
Riffles	17	344	5.9	0.27	2,030	60.00%	25	1.2	
Rapids	1	14	3.8	0.30	51	1.52%	15	29.2	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	10	4.9	0.47	45	1.33%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	22	36.0
Pools >=1m deep:	3	4.9
Complex pools (LWD pieces>=3):	5	8.2
Pool frequency (channel widths/pool):	3.0	
Residual pool depth (avg):	0.66	

STREAM SUMMARY

BRUSH CREEK SITE B PRE-TX (S-191)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Large Boulders (>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
43	611	5.2	0.49	3,383	5	20	68	5	1	2	88

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	220	6.51%
Scour Pools	1,037	30.65%
Glides	0	0.00%
Riffles	2,030	60.00%
Rapids	51	1.52%
Cascades	0	0.00%
Step/Falls	45	1.33%
Dry	0	0.00%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1 **REACH 1**

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	203
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
15-30cm	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.7
30-50cm	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
50-90cm	0.0	0.7	0.7	0.0	0.0	0.0	0.7	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	3.0	0.7	0.0	0.0	0.3	0.3	1.1

Canopy closure and ground cover

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	54	32	28
Shrub cover	55	17	8
Grass/forb cover	20	39	24

Predominant landform in each zone

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	0	17	17
High terrace	33	33	33
Low terrace	33	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	33	50	50
Riprap	0	0	0
Surface slope (%)	0	3	22

Summary of Riparian Zone (0-30m) for all reaches 3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	203
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3 <u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	1.0
15-30cm	0.3	0.7
30-50cm	0.0	1.0
50-90cm	0.7	0.7
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
14	LF	2	HS	20	80	90	5	Conifer				2		DOUG FIR
								Hardwood						
14	RT	2	RB	0	0	0	0	Conifer						
								Hardwood						
14	RT	3	RB	0	70	0	0	Conifer						
								Hardwood						
14	LF	3	RB	0	0	5	0	Conifer						HWY 101
								Hardwood						
14	LF	1	HT	0	90	80	5	Conifer						ALDER
								Hardwood	3	1	1	1		
14	RT	1	RB	0	50	40	5	Conifer						PARKING LOT
								Hardwood						
25	RT	3	HS	130	65	15	5	Conifer						MAPLE
								Hardwood		1				
25	RT	2	RB	0	0	0	10	Conifer						
								Hardwood						
25	RT	1	RB	0	0	40	5	Conifer			1			ALDER
								Hardwood						
25	LF	3	HT	0	0	30	40	Conifer						
								Hardwood						
25	LF	2	HT	0	70	0	85	Conifer						
								Hardwood						
25	LF	1	LT	0	85	90	10	Conifer						RED ALDER
								Hardwood			1			
35	LF	3	HT	0	0	0	100	Conifer						
								Hardwood						
35	LF	2	HT	0	0	0	100	Conifer						
								Hardwood						
35	RT	1	HT	0	90	0	85	Conifer						PHOTO 32
								Hardwood			1	1		14.36
35	RT	2	RB	0	40	10	35	Conifer						PARK FIELD
								Hardwood						
35	RT	3	RB	0	30	0	0	Conifer						PARK FIELD
								Hardwood						
35	LF	1	LT	0	10	80	10	Conifer						
								Hardwood						

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: **5-SC** SITE ID: **191** BRUSH CREEK SITE B PRE-TX (S-19)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
2	LP	01	20.9	TJ		
3	RI	11	20.9		ACW=3.0	
9	SL	00	50		H=.2	
10	LP	00	65.9	SS/		
11	RB	00	79.4	CS/		LARGE BOULDERS
12	LP	00	91.3	BC /CS	101 BRIDGE	
18	RP	01	164			MAX D=0.5
19	BW	10	164			MAX D=0.5
20	LP	00	175.8	BC/CS		PED. BRIDGE
25	LP	01	253.7	/CS		
26	BW	10	253.7	/CS		
30	RP	00	328.7			MAX D= 0.55
33	RI	01	378.7	BC		



Name: PORT ORFORD
 Date: 6/11/2003
 Scale: 1 inch equals 1666 feet

Location: 10 383745 E 4726307 N
 Caption: BRUSH CREEK SITE B RESTORATION SITE - OCEAN BASIN