

**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: Post-Tx  
DATE: June 29, 2004  
SURVEY CREW: Greg Ryder, Justin Gerding  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 27.5 km<sup>2</sup>  
USGS MAPS: Port Orford  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Brush Creek habitat survey extended 510 meters. The channel was constrained by terraces and land use in a broad valley floor. The average valley width index was 6.4 (range: 3.0-9.0). Land use for the reach was state park and large (30-50 cm dbh) trees. The average unit gradient was 0.9 percent. Riffles (55%) and scour pools (44%) dominated stream habitat. Gravel (56%) and sand (28%) dominated stream substrate. Wood volume was moderate at 27.9 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several habitat structures during the survey.

REACH 1

T33S-R15W-S25SE

REACH 1

**Valley and Channel Summary**

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	6.4	VWI Range:	3 - 9

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	510	2,512	0
Secondary	133	256	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.4	Width: 11.4	32.4 ( 14.3 - 63 )	34.7 ( 17.3 - 65 )
Depth: 0.54	Height: 0.6	1.2 ( 1.1 - 1.2 )	1.9 ( 1.4 - 4 )

W:D ratio: 19.6

Entrenchment (ACW:FPW ratio): 3.0

Stream Flow Type: LF

Habitat Units/100m (total channel length): 4.4

Average Unit Gradient: 0.9%

Habitat Units/100m (primary channel length): 5.5

Water temperature (°C): 14.0 - 14.0

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	2%	Reach avg: 73%
Undercut Banks:	3%	Range: 47 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	68	13.3
Volume (m <sup>3</sup> ):	142	27.9
Key pieces (>=12m x 0.60m):	9	1.8

OREGON DEPARTMENT OF FISH AND WILDLIFE

BRUSH CREEK SITE B POST-TX (SC191)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

6/29/2004

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 <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-BACKWATER	1	8	1.5	0.70	12	1	60	30	10	0	0	0
POOL-LATERAL SCOUR	11	228	5.4	0.88	1,220	8	7	42	47	2	1	0
RIFFLE	14	381	3.7	0.30	1,383	8	4	15	70	10	1	0
RIFFLE W/ POCKETS	1	26	5.8	0.40	150	0	0	20	50	20	0	10
STEP/LOG	1	1	5.2	0.10	4	0	40	60	0	0	0	0
<b>Total:</b>	28	643	4.4	0.54	2,768	17	<b>Avg:</b> 8	28	56	7	1	0

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	1	8	1.5	0.70	12	0.42%	1	8.5
Scour Pools	11	228	5.4	0.88	1,220	44.07%	8	0.7
Glides	0	0			0	0.00%	0	0.0
Riffles	15	407	3.9	0.31	1,533	55.37%	8	0.5
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	1	1	5.2	0.10	4	0.13%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	12	18.7	23.5
Pools >=1m deep:	5	7.8	9.8
Complex pools (LWD pieces>=3):	7	10.9	13.7
Pool frequency (channel widths/pool):	4.7		
Residual pool depth (avg):	0.72		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1

REACH 1

**Summary of Riparian Zone (0-30m)**

3 transects

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

**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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-30cm	0.0	0.3	0.0	1.0	0.0	0.0	0.0	1.3
30-50cm	0.0	0.7	0.0	0.7	0.0	0.0	0.0	1.3
50-90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
>90cm	0.7	0.3	0.0	0.0	0.0	0.0	0.7	0.3
Total/100m2	0.7	1.7	0.0	1.7	0.0	0.0	0.2	1.1

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	57		32		17	
Shrub cover	13		7		3	
Grass/forb cover	70		70		47	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		17		17	
High terrace	17		17		0	
Low terrace	17		0		0	
Floodplain	50		33		33	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		33		50	
Riprap	0		0		0	
Surface slope (%)	7		11		4	

**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		
11	RT	3	RB	0	0	0	0	Conifer							
								Hardwood							
11	LF	1	FP	6	40	0	20	Conifer						1	
								Hardwood						1	
11	LF	2	FP	0	30	0	100	Conifer							
								Hardwood							
11	LF	3	FP	0	0	0	100	Conifer							
								Hardwood							
11	RT	1	HS	20	80	40	40	Conifer							BIG LEAF
								Hardwood				1			MAPLE
11	RT	2	RB	0	0	0	0	Conifer							
								Hardwood							
14	RT	3	RB	15	100	0	0	Conifer							
								Hardwood							
14	LF	2	HT	0	20	20	80	Conifer							
								Hardwood							
14	LF	3	HS	10	0	20	80	Conifer							
								Hardwood							
14	RT	1	LT	7	80	20	80	Conifer							
								Hardwood			1				
14	RT	2	HS	30	100	20	80	Conifer							
								Hardwood			3	2			
14	LF	1	FP	6	30	20	80	Conifer							
								Hardwood							
21	LF	2	FP	0	40	0	100	Conifer							
								Hardwood							
21	LF	3	FP	0	0	0	100	Conifer							
								Hardwood							
21	RT	1	HT	0	90	0	100	Conifer						1	
								Hardwood							
21	RT	2	RB	35	0	0	60	Conifer							
								Hardwood							
21	RT	3	RB	0	0	0	0	Conifer							PARKING LOT
								Hardwood							
21	LF	1	FP	5	20	0	100	Conifer							
								Hardwood			2				

# Comment Summary

## Oregon Plan Monitoring Sites 2002

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

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RI	00	13.3		T=14 DEG C AT 9:45	T=14 DEG C
2	LP	01	32.3	TJ/		TRIB T=14 DEG C
3	RI	11	32.3		T=14 DEG C AT 10:20 AC	
4	RI	01	47.2			LAMPREY REDD
5	LP	01	64.9	SS/	LAMPREY REDD	
6	LP	02	64.9			SIDE CHANNEL
7	RI	00	85.9	CS/		
8	LP	00	107.4	BC, CS/	HWY 101 CROSSING	HW 101
10	RI	00	156.2	CS/		ASPHALT
11	LP	00	176.2	HS, BC, CS	SITE 1 FOOT BRIDGE	SITE 1, FOOT BRIDGE
13	RI	00	232.9	HS	SITE 2	SITE 2
14	LP	00	258.8	HS	SITE 3	SITE 3
15	RI	00	280.4	HS		SITE 4
16	LP	00	294.3	HS	SITE 4	SITE 4
17	LP	00	328.4	HS	SITE 5	SITE 5
18	RI	00	358.2	HS		
20	BW	10	382.1	HS	METRICS ON UNIT 21	
21	LP	00	397.4	HS	SITE 6	SITE 6
22	RP	00	423.2		SITE 7	POCKETS FORMED BY ROO
23	RI	01	451	HS		SITE 7
25	SL	01	463.6	HS	H=0.4 SITE 8	SITE 8 LG FIR IN STREAM

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: 5-SC SITE ID: 191 BRUSH CREEK SITE B POST-TX (SC

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
26	RI	01	510.2		END OF SURVEY	
27	RI	02	510.2			SIDE CHANNEL
28	RI	03	510.2			SIDE CHANNEL T=15 DEG C



