

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

STREAM: Brush Creek Site A (S-190)  
BASIN: Pacific Ocean  
SURVEY TYPE: Post-Tx  
DATE: June 8, 2005  
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 553 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 greenway (state park) and large (30-50 cm dbh) trees. The average unit gradient was 0.9 percent. Riffles (59%) and glides (23%) dominated stream habitat. Gravel (48%) and sand (44%) dominated stream substrate. Wood volume was very low at 4.5 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-S27NW

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 Channel	553	3,781	0
Secondary Channel	0	0	0
Off-Channel Units	7	29	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.7	Width: 10.6	15.9 ( 11.8 - 25 )	17.9 ( 13.8 - 27.5 )
Depth: 0.50	Height: 0.7	1.4 ( 1.3 - 1.4 )	1.8 ( 1.5 - 2.2 )

W:D ratio: 15.4  
 Stream Flow Type: MF  
 Average Unit Gradient: 0.9%  
 Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 1.5  
 Habitat Units/100m (total channel length): 4.6  
 Habitat Units/100m (primary channel length): 4.7

**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:		Reach avg: 86%
Undercut Banks:	2%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	35	6.3
Volume (m <sup>3</sup> ):	25	4.5
Key pieces (>=12m x 0.60m):	3	0.5

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

6/8/2005

REACH 1		T33S-R15W-S27NW					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
GLIDE	5	111	7.7	0.32	859	0	1	59	35	4	1	0
POOL-BACKWATER	1	7	4.1	0.70	29	0	15	45	30	5	0	5
POOL-LATERAL SCOUR	5	102	6.3	1.12	656	2	2	51	39	5	2	1
RIFFLE	15	339	6.7	0.34	2,266	11	0	37	57	5	1	0
<b>Total:</b>	26	560	6.7	0.50	3,810	13	<b>Avg:</b> 1	44	48	5	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	7	4.1	0.70	29	0.76%	0	0.0	
Scour Pools	5	102	6.3	1.12	656	17.22%	2	0.3	
Glides	5	111	7.7	0.32	859	22.54%	0	0.0	
Riffles	15	339	6.7	0.34	2,266	59.47%	11	0.5	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	0	0			0	0.00%	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>Total of all Channel Lengths # / Km</u>	<u>Primary Channel Length # / Km</u>
All Pools:	6	10.7	10.9
Pools >=1m deep:	3	5.4	5.4
Complex pools (LWD pieces>=3):	4	7.1	7.2
Pool frequency (channel widths/pool):	8.8		
Residual pool depth (avg):	0.92		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

BRUSH CREEK SITE A POST-TX  
GCG: 5-SC SITE ID: 190

Survey Date 6/8/2005  
Report Date: 4/26/2006

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	569
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	0
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	1.7	0.0	0.7	0.0	1.3	0.0	3.7
15-30cm	0.3	3.0	0.0	0.0	0.3	1.7	0.7	4.7
30-50cm	0.0	0.7	0.0	0.0	1.0	0.0	1.0	0.7
50-90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	5.7	0.0	0.7	1.3	3.0	0.6	3.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	152		18		43	
Shrub cover	37		0		20	
Grass/forb cover	40		50		33	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		0		50	
High terrace	17		50		33	
Low terrace	0		0		0	
Floodplain	50		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		50		17	
Riprap	0		0		0	
Surface slope (%)	23		0		55	

**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	569
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	0
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	3.7
15-30cm	0.7	4.7
30-50cm	1.0	0.7
50-90cm	0.0	0.3
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1 Reach 1

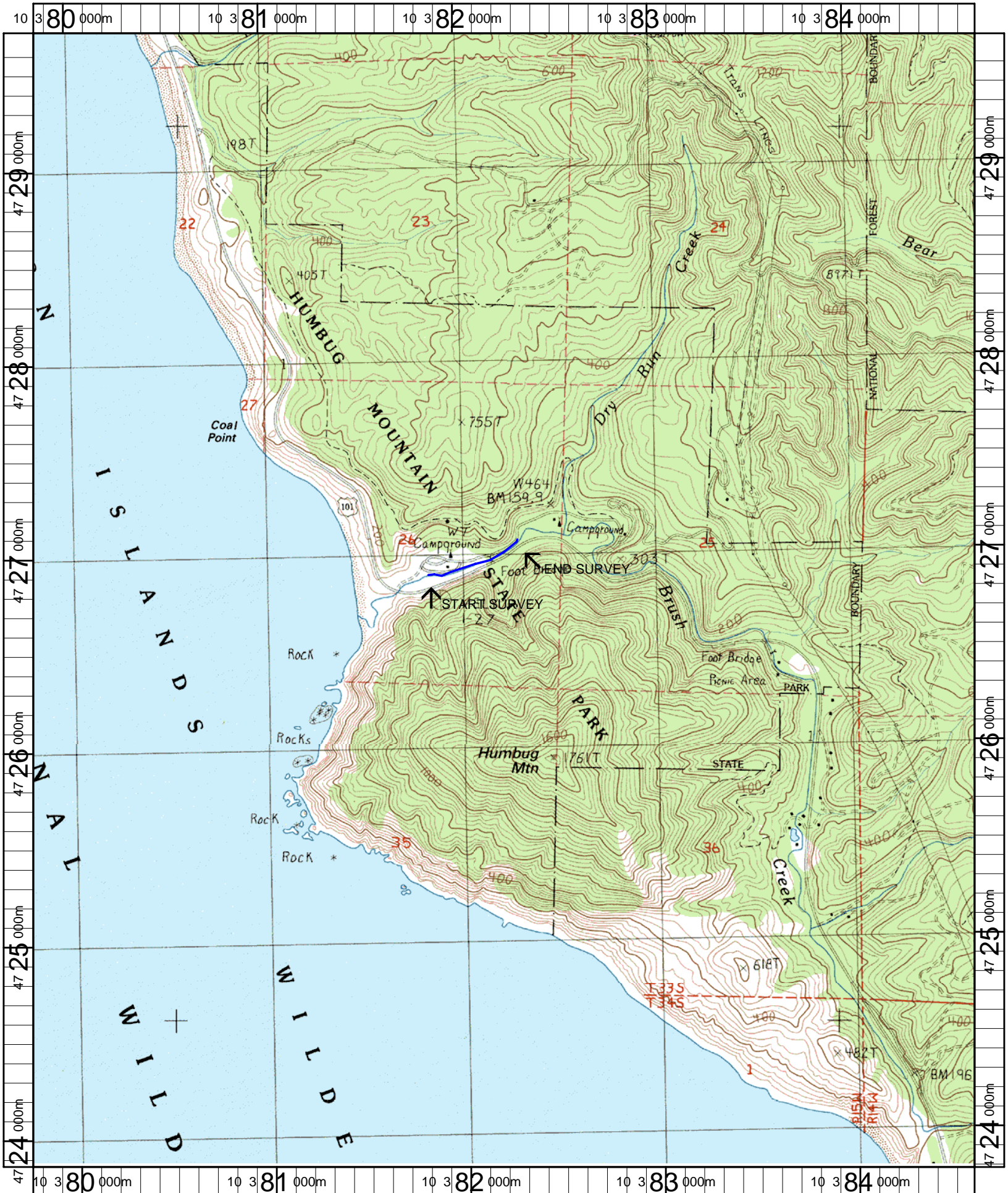
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
8	RT	2	RB	0	0	0	0							Conifer	HWY 101
														Hardwood	
8	RT	3	HS	150	0	0	0							Conifer	ROCK CLIFF
														Hardwood	
8	LF	3	HT	0	0	0	100							Conifer	IN
														Hardwood	CAMPGROUN
															D
8	LF	1	FP	5	60	80	20							Conifer	
														Hardwood	
8	LF	2	HT	0	40	0	100				1			Conifer	IN
														Hardwood	CAMPGROUN
															D
8	RT	1	HS	30	100	20	20							Conifer	
														Hardwood	
13	LF	2	HT	0	50	0	100				2			Conifer	IN
														Hardwood	CAMPGROUN
															D
13	LF	1	FP	5	100	0	60							Conifer	
														Hardwood	
13	LF	3	HT	0	100	20	80		1	3				Conifer	IN
														Hardwood	CAMPGROUN
															D
13	RT	2	RB	0	0	0	0							Conifer	HWY 101
														Hardwood	
13	RT	3	HS	140	80	60	0							Conifer	
														Hardwood	
13	RT	1	FP	30	80	20	60		3	2				Conifer	
														Hardwood	
18	RT	2	RB	0	0	0	0							Conifer	HWY 101
														Hardwood	
18	RT	3	HS	40	80	40	20				1	1		Conifer	
														Hardwood	
18	RT	1	HS	50	100	60	20		1	3				Conifer	
														Hardwood	
18	LF	3	RB	0	0	0	0		3				1	Conifer	CAMPGROUN
														Hardwood	D ROAD
18	LF	2	HT	0	20	0	100							Conifer	CAMPSITE
														Hardwood	
18	LF	1	HT	20	470	40	60							Conifer	
														Hardwood	
									1	2	1				

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **5-SC**      SITE ID: **190**      BRUSH CREEK SITE A POST-TX

<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	LP	00	26.2	HS		UNCABLED LOG PLACEMEN
3	LP	00	67.2		LAMPREY REDD	
4	RI	00	92.6	HS		UNCABLED LOG
8	LP	00	133.4	HS, DJ		UNCABLED LOG AND ROOT
19	GL	00	399.2	BC	FOOTBRIDGE	FOOTBRIDGE FROM CAMPG
22	RI	00	459.8	CS/		CABLED LOGS AND BOULDE
23	RI	00	484.8	CS/		RIPRAP
24	LP	00	504.9	DJ, CS/		CABLED LOGS, BLDRS, RIPR
25	RI	00	529.9	CS/		CABLED LOGS, BLDRS, RIPR
26	RI	00	552.8	CS/CE	ROAD ACTS AS HIGH TE	CABLED LOGS, BLDRS, RIPR



Name: PORT ORFORD  
 Date: 5/1/2006  
 Scale: 1 inch equals 2000 feet

Location: 10 382217 E 4726754 N  
 Caption: BRUSH CREEK TRIBUTARY A RESTORATION SITE - OCEAN BASIN