

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

STREAM: Brush Creek Tributary (SC-239)
BASIN: Ocean
SURVEY TYPE: Post-Tx
DATE: 6/22/2006
SURVEY CREW: Steven Koller, Gregg Ryder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.9 km²
USGS MAPS: Port Orford
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Brush Creek Tributary habitat survey extended 603 meters. The channel was hillslope constrained in a moderate, v-shaped valley. The average valley width index was 5.7 (range: 1.1-20). Land use for the reach was green way. The average unit gradient was 2.4 percent. Riffles (70%) and scour pools (13%) dominated stream habitat. Gravel (60%) and fines (27%) dominated stream substrate. Wood volume was low at 10.8 m³/100m.

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	0%
Moderate V-shape	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.7	VWI Range:	1.1 - 20

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	603	1,498	0
Secondary Channel	107	144	3
Off-Channel Units	27	91	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 2.4	Width: 8.6	16.0 (6.2 - 23)	17.5 (17.5 - 17.5)
Depth: 0.19	Height: 0.4	0.8 (0.4 - 1)	1.8 (1.8 - 1.8)

W:D ratio: 28.8

Entrenchment (ACW:FPW ratio): 2.1

Stream Flow Type: LF

Habitat Units/100m (total channel length): 6.1

Average Unit Gradient: 2.4%

Habitat Units/100m (primary channel length): 7.5

Water temperature (°C): 13.0 - 13.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	GN	
Riparian Vegetation:	C30	M30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 88%
Undercut Banks:	3%	Range: 42 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	39	6.5
Volume (m ³):	65	10.8
Key pieces (>=12m x 0.60m):	7	1.2

OREGON DEPT OF FISH AND WILDLIFE BRUSH CREEK TRIBUTARY POST-TX (5-SC, 239)

HABITAT INVENTORY Report Date: 3/5/2007 Survey Date: 6/22/2006

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
DRY CHANNEL	2	44	2.7	0.00	97	0	0	11	76	14	0	0
POOL-BACKWATER	4	14	2.8	0.24	42	0	30	35	25	9	1	0
POOL-ISOLATED	1	4	4.0	0.25	14	0	40	40	20	0	0	0
POOL-LATERAL SCOUR	10	84	2.5	0.31	227	0	3	31	48	10	1	8
PUDDLED UNIT	2	41	1.2	0.08	47	0	5	20	65	10	0	0
RAPID/BOULDERS	2	35	2.6	0.15	91	0	0	5	50	45	0	0
RIFFLE	20	435	2.3	0.10	980	0	2	14	74	10	0	0
RIFFLE W/ POCKETS	4	81	2.9	0.38	235	0	8	25	56	11	0	0
Total:	45	737	2.4	0.19	1,733	0	Avg: 6	21	60	11	0	2

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	5	17	3.0	0.24	56	3.22%	0	0.0	
Scour Pools	10	84	2.5	0.31	227	13.10%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	24	515	2.4	0.15	1,215	70.12%	0	0.0	
Rapids	2	35	2.6	0.15	91	5.23%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	4	85	1.9	0.04	144	8.32%	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:	15	20.3	24.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	1.4	1.7
Pool frequency (channel widths/pool):	5.7		
Residual pool depth (avg):	0.26		

Survey Date 6/22/2006
Report Date: 3/5/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	833
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	81
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	1.3	0.0	2.3	0.0	0.0	0.0	3.7
15-30cm	0.7	0.3	0.0	1.7	0.0	1.7	0.7	3.7
30-50cm	0.0	2.3	0.0	2.7	0.3	1.3	0.3	6.3
50-90cm	0.3	0.0	0.0	0.0	1.0	0.0	1.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	4.0	0.0	6.7	1.3	3.0	0.8	4.6

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	67	73	40
Shrub cover	20	13	20
Grass/forb cover	73	73	50

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	17	83	83
High terrace	0	17	0
Low terrace	0	0	0
Floodplain	83	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	17
Riprap	0	0	0
Surface slope (%)	8	37	38

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	833
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	81
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	3.7
30-50cm	0.3	6.3
50-90cm	1.3	0.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

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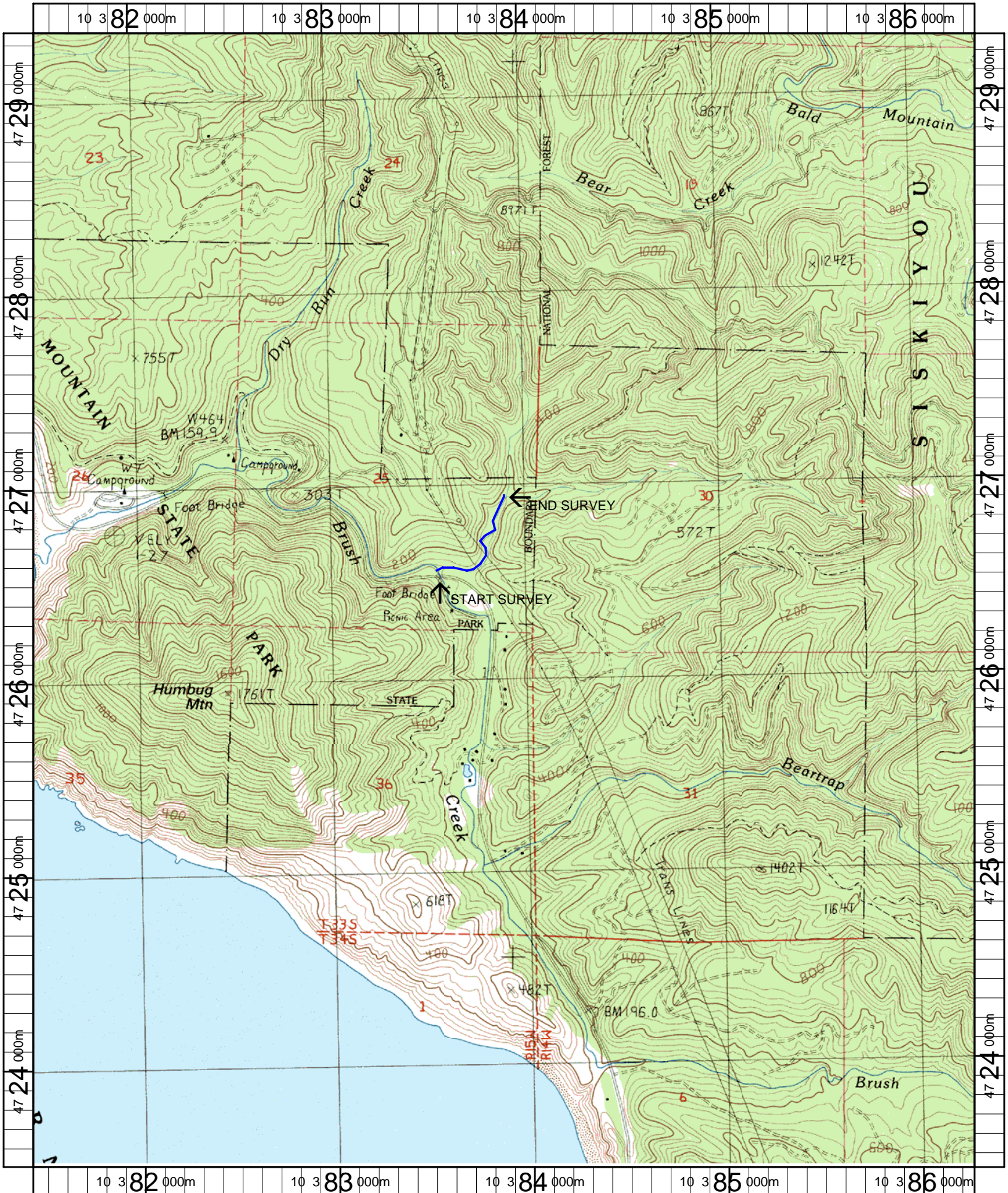
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
9	LF	1	FP	2	80	20	80	Conifer							
								Hardwood	1		1				
9	LF	2	HS	42	100	40	60	Conifer							
								Hardwood	1	1	4				
9	LF	3	HS	30	60	20	20	Conifer					3		
								Hardwood		1	3				
9	RT	3	RB	0	0	0	0	Conifer							
								Hardwood							
9	RT	1	FP	2	40	80	20	Conifer			2				
								Hardwood							
9	RT	2	HS	40	20	20	0	Conifer							
								Hardwood							
19	RT	2	HT	0	20	0	100	Conifer							
								Hardwood		1					
19	LF	2	HS	40	100	0	100	Conifer							
								Hardwood	3	2	1				
19	RT	3	HS	80	0	60	40	Conifer							
								Hardwood							
19	RT	1	FP	2	60	0	100	Conifer							
								Hardwood			2				
19	LF	3	HS	40	0	20	60	Conifer							
								Hardwood		1	1				
19	LF	1	FP	0	80	0	60	Conifer							NO AMPHIBIANS
								Hardwood			4				
29	LF	3	HS	40	100	20	80	Conifer							
								Hardwood		3					
29	LF	1	HS	40	60	0	100	Conifer					1		
								Hardwood	3						
29	RT	2	HS	40	100	0	100	Conifer							
								Hardwood		1	3				
29	RT	1	FP	0	80	20	80	Conifer							
								Hardwood		1					
29	RT	3	HS	40	80	0	100	Conifer					1		
								Hardwood							
29	LF	2	HS	60	100	20	80	Conifer							
								Hardwood	3						

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 5-SC SITE ID: 239 BRUSH CREEK TRIBUTARY POST-T

<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	25		BL CS	
2	RI	00	50	BC, CS/CS		FOOTBRIDGE, BOULDERS
10	LP	00	147.1			HARD PAN ACTING AS BE
17	LP	00	212.6	HS		
18	RI	01	237.6	HS		
23	RI	01	326.8	HS, /SS		
28	RI	00	351.8	HS		
30	RP	01	408.8	HS		
32	RP	01	433.8	HS		
36	RP	01	478.9	HS		
42	RI	00	560.1	CS		CONCRETE SIDES
43	LP	00	580.3	HS		
44	RB	01	603.3	HS		



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

Location: 10 383889 E 4726395 N
 Caption: BRUSH CREEK TRIBUTARY RESTORATION SITE - OCEAN BASIN