

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 9, 2005
SURVEY CREW: Greg Ryder, Justin Gerding
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 27.5 km²
USGS MAPS: Port Orford
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Brush Creek habitat survey extended 508 meters. The channel was constrained by terraces and land use in a broad valley floor. The average valley width index was 5.3 (range: 1.5-9.0). Land use for the reach was greenway (state park) and large (30-50 cm dbh) trees. The average unit gradient was 1.9 percent. Riffles (64%) and scour pools (35%) dominated stream habitat. Gravel (60%) and sand (34%) dominated stream substrate. Wood volume was moderate at 26.3 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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.3	VWI Range:	1.5 - 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	508	3,186	0
Secondary Channel	84	439	0
Off-Channel Units	38	76	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 5.8	Width: 11.7	21.8 (13.3 - 32.3)	25.8 (18.9 - 34.1)
Depth: 0.54	Height: 0.6	1.3 (1.2 - 1.4)	1.6 (1.5 - 1.6)

W:D ratio: 18.6

Entrenchment (ACW:FPW ratio): 1.9

Stream Flow Type: MF

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

Average Unit Gradient: 1.9%

Habitat Units/100m (primary channel length): 6.9

Water temperature (°C): 12.0 - 12.0

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:	1%	Reach avg: 75%
Undercut Banks:	19%	Range: 47 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	93	18.3
Volume (m ³):	134	26.3
Key pieces (>=12m x 0.60m):	9	1.8

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

6/9/2005

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-BACKWATER	1	13	2.7	0.70	36	0	0	50	50	0	0	0
POOL-LATERAL SCOUR	11	197	6.6	0.89	1,278	12	5	37	54	2	3	0
POOL-PLUNGE	1	4	8.4	0.80	30	0	10	60	30	0	0	0
RIFFLE	17	343	5.5	0.34	1,955	13	2	28	67	1	2	0
RIFFLE W/ POCKETS	3	74	5.3	0.53	397	2	2	30	65	2	2	0
STEP/LOG	2	1	5.0	0.20	5	0	13	53	35	0	0	0
Total:	35	631	5.8	0.54	3,701	27	Avg: 4	34	60	1	2	0

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	1	13	2.7	0.70	36	0.97%	0	0.0	
Scour Pools	12	200	6.8	0.88	1,308	35.34%	12	0.9	
Glides	0	0			0	0.00%	0	0.0	
Riffles	20	416	5.5	0.37	2,352	63.56%	15	0.6	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	1	5.0	0.20	5	0.12%	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>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	13	20.6	25.6
Pools >=1m deep:	2	3.2	3.9
Complex pools (LWD pieces>=3):	6	9.5	11.8
Pool frequency (channel widths/pool):	4.2		
Residual pool depth (avg):	0.65		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

BRUSH CREEK SITE B POST-TX
GCG: 5-SC SITE ID: 191

Survey Date 6/9/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	142
Total conifers/1000 ft	20
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	20

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	0.7	0.0	0.0	0.0	0.0	0.0	0.7
15-30cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
30-50cm	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.7
50-90cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
>90cm	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Total/100m2	0.3	2.0	0.0	0.3	0.0	0.0	0.1	0.8

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	64	43	28
Shrub cover	17	4	11
Grass/forb cover	77	54	58

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	17	33
High terrace	33	67	50
Low terrace	67	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	17	17
Riprap	0	0	0
Surface slope (%)	8	9	11

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	142
Total conifers/1000 ft	20
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	20

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	0.7
15-30cm	0.0	0.3
30-50cm	0.0	0.7
50-90cm	0.0	0.7
>90cm	0.3	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	LF	3	HT	0	0	0	100	Conifer							
								Hardwood							
8	RT	3	HT	0	30	15	15	Conifer							70 PERCENT PARKING LOT
								Hardwood							
8	LF	1	HT	0	60	10	90	Conifer							
								Hardwood				1			
8	RT	1	LT	35	75	30	30	Conifer							
								Hardwood				1			
8	LF	2	HT	0	10	0	100	Conifer							
								Hardwood							
8	RT	2	HT	0	0	0	0	Conifer							CONCRETE PARKING LOT
								Hardwood							
14	LF	1	LT	0	80	20	80	Conifer							
								Hardwood	2						
14	RT	3	HS	55	80	10	90	Conifer							
								Hardwood							
14	RT	2	RB	0	80	0	20	Conifer							
								Hardwood			1				
14	RT	1	LT	10	60	10	90	Conifer							
								Hardwood		1					
14	LF	3	HS	10	60	40	40	Conifer							20 PERCENT SIDEWALK
								Hardwood							
14	LF	2	HT	0	100	0	80	Conifer							20 PERCENT SIDEWALK
								Hardwood							
20	LF	1	LT	0	40	30	70	Conifer							
								Hardwood			1				
20	LF	2	HT	0	20	0	100	Conifer							
								Hardwood							
20	RT	3	RB	0	0	0	0	Conifer							ASPHALT LOT
								Hardwood							
20	RT	1	HT	0	70	0	100	Conifer							1
								Hardwood							
20	RT	2	HS	55	50	25	25	Conifer							50 PERCENT ASPHALT
								Hardwood							
20	LF	3	HT	0	0	0	100	Conifer							
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2005

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

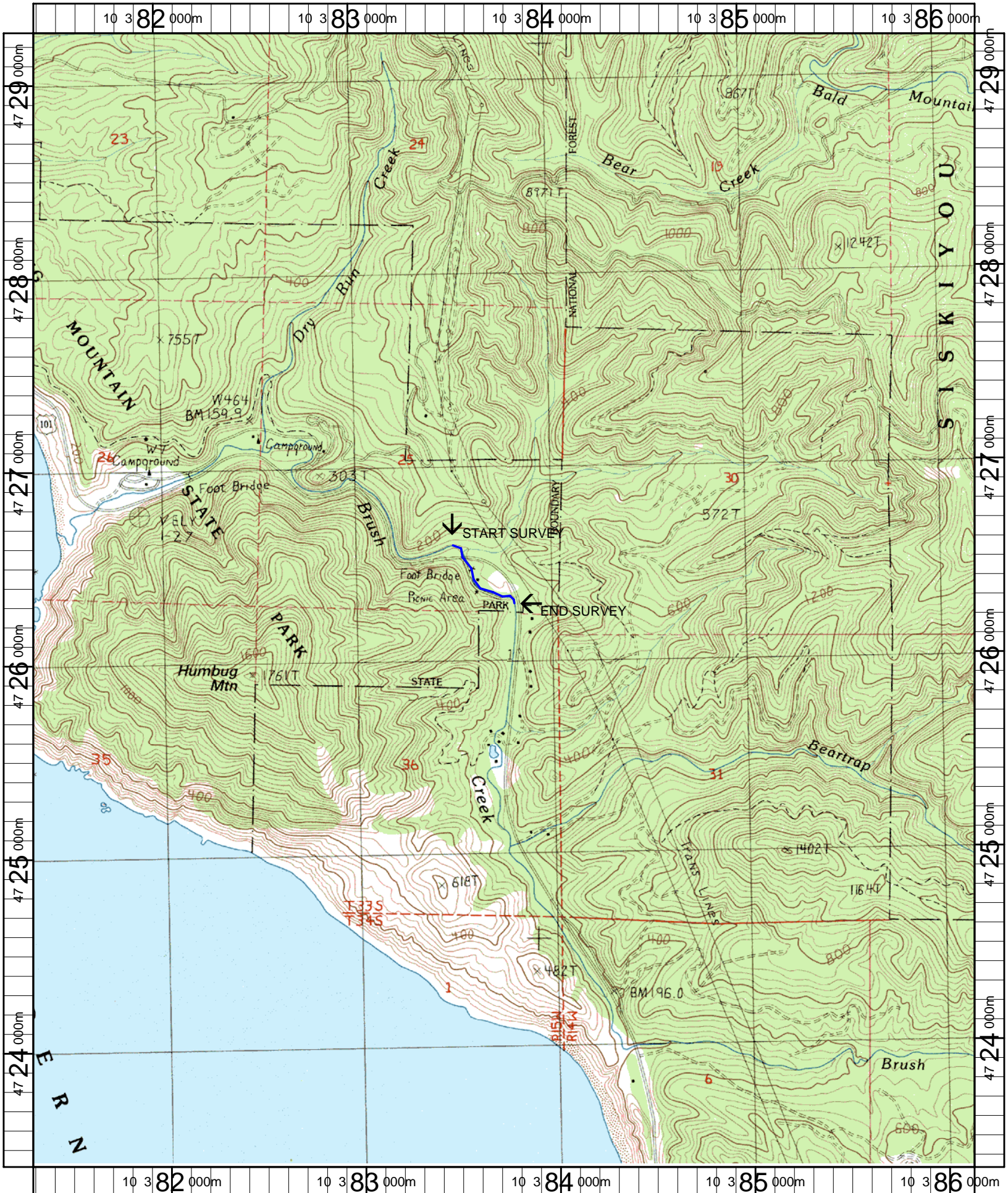
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	LP	01	38.4	TJ/		
3	RI	11	38.4			TRIBUTARY
5	RI	00	85.8	SS/, BC		HWY 101 BRIDGE
6	RP	00	110.8	/CS, BV		RIPRAP FROM BRIDGE
7	LP	00	124.3			LIVE DOWNED WILLOWS IN
8	RI	00	149.3			RIPARIAN 1
10	LP	00	177.7	BC, DJ,CS/		FOOTBRIDGE, RIPRAP
13	BW	10	232.9			TROUT
14	LP	00	264.2	/CS, HS		RIPRAP, RIPARIAN 2
16	LP	00	299.4	HS		COHO FRY
17	RP	00	325.7	HS		
18	LP	00	345.2	HS, WL		RSN
19	RI	00	370.2	BC		FOOTBRIDGE
20	RI	00	387.8			RIPARIAN 3
21	LP	00	402	HS, DJ		COHO FRY
22	RI	00	417.2	HS		
23	LP	00	427.3	HS		
24	RI	01	452.3	HS		
27	SL	01	473.7	HS, DJ	H = 1.0	H = 1.0
30	SL	02	508.3		H = 0.4	H = 0.4
34	LP	02	508.3	CS/		RIPRAP FROM HWY 101

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 5-SC SITE ID: 191 BRUSH CREEK SITE B 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>
35	RI	02	508.3	CS/		



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

Location: 10 383755 E 4726303 N
 Caption: BRUSH CREEK TRIBUTARY B RESTORATION SITE - OCEAN BASIN