

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

STREAM: Burnt Creek (MS-377)
BASIN: Coquille River
SURVEY TYPE: Pre-Tx
DATE: June 27, 2007
SURVEY CREW: Lisa Biggs, Peter Cole
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 9.9 km²
USGS MAPS: Tioga
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Burnt Creek habitat survey extended 642 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.9 (range: 1.1-7.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.2 percent. Scour pools (49%) and riffles (31%) dominated stream habitat. Bedrock (24%) and gravel (23%) dominated stream substrate. Wood volume was low at 14.9 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

T26S-R09W-S31SE

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	3.9	VWI Range:	1.1 - 7

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	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	642	3,328	0
Secondary Channel	0	0	0
Off-Channel Units	48	86	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 5
Width: 4.8	Width: 10.3	12.4 (9.7 - 15.4)	14.6 (10.5 - 21.4)
Depth: 0.35	Height: 0.8	1.5 (1.4 - 1.8)	1.9 (1.6 - 2.4)

W:D ratio: 13.6
 Stream Flow Type: LF
 Average Unit Gradient: 2.2%
 Water temperature (°C): 11.0 - 11.0

Entrenchment (ACW:FPW ratio): 1.2
 Habitat Units/100m (total channel length): 7.2
 Habitat Units/100m (primary channel length): 7.8

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 83%
Undercut Banks:	10%	Range: 53 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	121	18.9
Volume (m ³):	96	14.9
Key pieces (>=12m x 0.60m):	4	0.6

OREGON DEPT OF FISH AND WILDLIFE

BURNT CREEK PRE-TX (3-MS, 377)

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

6/26/2007

REACH 1		T26S-R09W-S31SE					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
CASCADE/BOULDERS	3	34	1.8	0.03	51	14	9	12	19	16	20	24
DRY UNIT	1	15	1.0	0.00	15	0	10	90	0	0	0	0
POOL-BACKWATER	1	9	2.5	0.30	23	1	47	24	12	12	6	0
POOL-BEAVER DAM	2	33	5.8	0.85	183	8	8	40	35	8	10	0
POOL-LATERAL SCOUR	12	226	5.2	0.73	1,202	70	13	20	17	18	9	23
POOL-PLUNGE	4	48	9.1	0.99	426	12	8	24	19	6	5	38
POOL-STRAIGHT SCOUR	1	8	7.0	0.35	53	7	21	32	32	11	5	0
RAPID/BEDROCK	2	26	5.0	0.15	128	1	2	5	5	3	3	83
RAPID/BOULDERS	2	41	5.0	0.13	204	32	3	11	16	39	16	16
RIFFLE	12	211	4.5	0.10	975	70	1	14	38	25	6	16
RIFFLE W/ POCKETS	1	17	4.0	0.15	66	16	5	11	21	53	11	0
STEP/BEAVER DAM	2	1	5.6	0.02	7	0	0	20	70	10	0	0
STEP/BEDROCK	3	6	3.5	0.03	17	2	0	0	0	0	0	100
STEP/COBBLE	3	15	4.1	0.13	61	13	0	11	22	37	21	9
STEP/STRUCTURE	1	1	4.0	0.10	4	28	0	0	0	10	90	0
Total:	50	690	4.8	0.35	3,414	274	Avg: 7	18	23	18	10	24

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	3	42	4.7	0.67	205	6.01%	9	4.4	
Scour Pools	17	282	6.2	0.77	1,681	49.24%	89	5.3	
Glides	0	0			0	0.00%	0	0.0	
Riffles	13	228	4.5	0.10	1,041	30.50%	86	8.3	
Rapids	4	67	5.0	0.14	331	9.71%	33	10.0	
Cascades	3	34	1.8	0.03	51	1.49%	14	27.5	
Step/Falls	9	23	4.2	0.07	89	2.61%	43	48.3	
Dry	1	15	1.0	0.00	15	0.44%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	20	29.0	31.2
Pools >=1m deep:	4	5.8	6.2
Complex pools (LWD pieces>=3):	9	13.0	14.0
Pool frequency (channel widths/pool):	3.4		
Residual pool depth (avg):	0.67		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

BURNT CREEK PRE-TX
GCG: 3-MS SITE ID: 377

Survey Date 6/26/2007

RIPARIAN ZONE

Report Date: 11/7/2007

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	894
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	81

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1		Zone 2		Zone 3		Zones 1-3	
	0-10 meters		10 - 20 meters		20 - 30 meters		0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	2.7	0.0	2.0	0.0	2.3	0.0	7.0
15-30cm	0.0	2.7	0.0	1.3	0.0	1.7	0.0	5.7
30-50cm	0.0	0.7	0.0	1.3	0.0	0.0	0.0	2.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.7	0.0	0.7	0.0	1.3	0.0
Total/100m2	0.0	6.0	0.7	4.7	0.7	4.0	0.4	4.9

Canopy closure and ground cover

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	88		79		76	
Shrub cover	43		37		13	
Grass/forb cover	43		47		59	

Predominant landform in each zone

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		50		50	
High terrace	67		33		17	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		33	
Riprap	0		0		0	
Surface slope (%)	30		24		45	

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	894
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	81

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	7.0
15-30cm	0.0	5.7
30-50cm	0.0	2.0
50-90cm	0.0	0.0
>90cm	1.3	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		
13	LT	1	HS	60	70	75	25	Conifer							
								Hardwood		2	1				
13	LT	2	RB	0	50	5	25	Conifer							
								Hardwood							
13	LT	3	HS	120	95	5	60	Conifer							
								Hardwood		2					
13	RT	1	HT	5	75	90	10	Conifer							
								Hardwood							
13	RT	2	HT	5	75	95	0	Conifer							
								Hardwood				1			
13	RT	3	RB	5	40	5	30	Conifer							
								Hardwood							
26	LT	1	HT	20	95	10	80	Conifer							
								Hardwood	1	1	1				
26	LT	2	HT	0	95	0	85	Conifer						2	
								Hardwood			1				
26	LT	3	HT	27	90	20	80	Conifer						2	
								Hardwood	2						
26	RT	1	HT	5	100	5	50	Conifer							
								Hardwood	3	3					
26	RT	2	HS	26	95	25	70	Conifer							CONIFER
								Hardwood	4	3	1			90+STUMP	
26	RT	3	HS	30	95	15	80	Conifer							
								Hardwood	3	1					
38	LT	1	HT	0	95	75	20	Conifer							
								Hardwood	3	2					
38	LT	2	HS	25	65	80	20	Conifer							
								Hardwood		1	1				
38	LT	3	RB	0	40	20	20	Conifer							
								Hardwood		1					
38	RT	1	HS	90	95	5	75	Conifer							
								Hardwood	1						
38	RT	2	HS	90	95	15	80	Conifer							
								Hardwood	2						
38	RT	3	HS	90	95	10	85	Conifer							
								Hardwood	2	1					

COMMENT SUMMARY

MONITORING AREA: 3-MS SITE ID: 377 STREAM: BURNT CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	SD	00	15.1	BD	
3	BP	00	23.2	BV	COHO IN BP
7	SD	00	46.1	BD	
8	BP	00	70.5	BV	LOTS OF COHO, DACE PRESENT
10	RI	01	118.9	BC	
12	LP	00	150.4		LOTS OF COHO
13	SS	00	151.4	HS	BOULDER WEIR, RIP 1
16	LP	01	193.3	HS, TJ/	RIP # 1, BOULDER WEIR IN MIDDLE OF POOL
17	CB	11	193.3		ACW=1.8
18	RP	00	209.9	HS	OLD BOULDER WEIR
19	LP	00	225.7	HS	LWD CABLED & OLD BOULDER WEIR, 10" JUVENILE PGS
20	RI	00	242.3		OLD STW REDD
21	LP	00	257.6		DACE & COHO
22	RI	00	274.6		OLD STW REDD, SCULPIN
26	PP	00	305.5		RIP 2
34	RI	00	412.7	WL	DEER TRACKS
36	LP	01	444.6	TJ/	
37	DU	11	444.6		ACW=1.0
38	RI	01	469.1	/TJ	3.5" RLF, RIP 3
39	CB	11	469.1		ACW=3, T=11° C
47	RB	00	598	BC	OLD LOGGING RD
48	PP	01	616.7	TJ/	3.5" RLF

COMMENT SUMMARY

MONITORING AREA: 3-MS SITE ID: 377 STREAM: BURNT CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
50	RR	00	641.7		END

