

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

STREAM: Lost Creek (U-246)
BASIN: Umpqua River
SURVEY TYPE: Post-Tx
DATE: July 11, 2005
SURVEY CREW: Kevin Drake, Erin Coleman
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 20.7 km²
USGS MAPS: Tyee
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Lost Creek habitat survey extended 2,366 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 15.4 (range: 1.5-99.0). Land use for the reach was large (30-50 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 1.8 percent. Riffles (47%) and scour pools (25%) dominated stream habitat. Bedrock (47%) and gravel (30%) dominated stream substrate. Wood volume was very low at 9.6 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

T24S-R07W-S21SE

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	15.4	VWI Range:	1.5 - 99

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	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	2,366	11,611	0
Secondary Channel	31	33	3
Off-Channel Units	23	18	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 11	<u>First Terrace</u> n = 11
Width: 4.6	Width: 7.9	9.7 (5.2 - 15.4)	11.8 (6.4 - 18.7)
Depth: 0.24	Height: 0.4	0.7 (0.6 - 1)	1.2 (0.8 - 2)

W:D ratio: 21.6
 Stream Flow Type: MF
 Average Unit Gradient: 1.8%
 Water temperature (°C): 16.0 - 16.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 6.2
 Habitat Units/100m (primary channel length): 6.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	MT
Riparian Vegetation:	D15	D3

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	8%	Reach avg: 74%
Undercut Banks:	6%	Range: 29 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	179	7.6
Volume (m ³):	228	9.6
Key pieces (>=12m x 0.60m):	1	0.0

OREGON DEPT OF FISH AND WILDLIFE

LOST CREEK POST-TX (4-UJP, 246)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/11/2005

REACH 1

T24S-R07W-S21SE

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/BEDROCK	2	42	4.5	0.30	191	0	0	5	5	0	0	90
CASCADE/BOULDERS	3	17	0.6	0.06	10	0	7	13	57	23	0	0
DRY UNIT	2	9	0.3	0.00	2	0	20	0	80	0	0	0
GLIDE	1	22	4.0	0.20	88	0	0	5	15	10	0	70
POOL-BACKWATER	1	4	1.2	0.20	4	0	0	30	40	0	0	30
POOL-BEAVER DAM	2	57	6.0	0.75	428	0	20	0	30	20	15	15
POOL-LATERAL SCOUR	35	582	4.6	0.56	2,814	39	1	7	31	17	2	41
POOL-PLUNGE	2	8	6.1	0.50	43	0	0	13	45	0	3	40
PUDDLED UNIT	1	8	0.7	0.10	6	0	10	0	80	10	0	0
RAPID/BEDROCK	14	268	4.6	0.11	1,262	21	0	1	8	3	1	87
RAPID/BOULDERS	14	249	3.4	0.13	898	27	0	0	55	30	3	12
RIFFLE	50	1,051	4.8	0.14	5,343	72	0	4	33	16	3	44
RIFFLE W/ POCKETS	2	24	4.1	0.25	88	11	0	0	0	0	8	93
STEP/BEAVER DAM	2	2	7.8	0.05	16	0	75	0	0	0	0	25
STEP/BEDROCK	17	72	5.8	0.11	442	1	0	0	8	3	0	89
STEP/BOULDERS	1	1	5.3	0.05	5	1	0	0	30	30	40	0
STEP/COBBLE	2	6	4.3	0.08	23	5	0	0	33	45	23	0
Total:	151	2,420	4.6	0.24	11,662	177	Avg: 2	4	30	14	3	47

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	61	4.4	0.57	432	3.71%	0	0.0
Scour Pools	37	590	4.7	0.55	2,857	24.50%	39	1.4
Glides	1	22	4.0	0.20	88	0.75%	0	0.0
Riffles	52	1,075	4.8	0.15	5,431	46.56%	83	1.5
Rapids	28	517	4.0	0.12	2,159	18.52%	48	2.2
Cascades	5	59	2.2	0.16	201	1.73%	0	0.0
Step/Falls	22	80	5.8	0.10	486	4.16%	7	1.4
Dry	3	17	0.4	0.03	8	0.07%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

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REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	40	16.5	16.9
Pools >=1m deep:	5	2.1	2.1
Complex pools (LWD pieces>=3):	9	3.7	3.8
Pool frequency (channel widths/pool):	7.7		
Residual pool depth (avg):	0.45		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

LOST CREEK POST-TX
GCG: 4-UMP SITE ID: 246

Survey Date 7/11/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 10 transects

Total hardwoods/1000	610
Total conifers/1000 ft	146
Total conifers >20" dbh/1000 ft	49
Total conifers >35" dbh/1000 ft	12

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	0.1	2.2	0.0	1.2	0.1	1.4	0.2	4.8
15-30cm	0.0	1.6	0.1	1.0	0.1	1.3	0.2	3.9
30-50cm	0.2	0.4	0.4	0.1	0.6	0.5	1.2	1.0
50-90cm	0.1	0.1	0.3	0.1	0.2	0.1	0.6	0.3
>90cm	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0
Total/100m2	0.5	4.3	0.9	2.4	1.0	3.3	0.8	3.3

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	36		35		41	
Shrub cover	26		25		22	
Grass/forb cover	48		52		47	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	20		35		50	
High terrace	40		50		40	
Low terrace	40		10		5	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		5		5	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	10		11		11	

Summary of Riparian Zone (0-30m) for all reaches

10 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	610
Total conifers/1000 ft	146
Total conifers >20" dbh/1000 ft	49
Total conifers >35" dbh/1000 ft	12

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	0.2	4.8
15-30cm	0.2	3.9
30-50cm	1.2	1.0
50-90cm	0.6	0.3
>90cm	0.2	0.0

35	RT	3	HS	35	70	0	20	Conifer					2	
								Hardwood	1	1				
35	LF	1	LT	0	60	10	70	Conifer						457738, 4812285
								Hardwood	1	1				
35	LF	2	HT	0	70	35	55	Conifer						
								Hardwood		4				
35	LF	3	HT	0	35	40	40	Conifer						ALSO ROAD BED
								Hardwood						
35	RT	1	HT	0	50	0	20	Conifer					1	
								Hardwood						
35	RT	2	HS	20	70	20	60	Conifer						
								Hardwood	1	3				
49	RT	2	HT	0	20	30	60	Conifer						
								Hardwood		2				
49	RT	3	HT	0	40	60	10	Conifer						
								Hardwood						
49	RT	1	HT	0	60	60	30	Conifer						
								Hardwood						
49	LF	1	LT	0	65	20	30	Conifer						457827, 4812149
								Hardwood	1	2	2	1		
49	LF	2	HT	0	40	0	70	Conifer						
								Hardwood						
49	LF	3	HT	0	60	0	20	Conifer						
								Hardwood		1		1		
67	LF	1	LT	0	40	10	60	Conifer						457814, 4811930
								Hardwood	1	1				
67	LF	2	LT	0	60	40	20	Conifer						
								Hardwood	1	1	1	1		
67	LF	3	LT	0	70	20	40	Conifer						ALSO HT
								Hardwood	2	1				
67	RT	1	HT	0	20	10	70	Conifer						
								Hardwood						
67	RT	2	HT	0	40	20	60	Conifer					1	ALSO HT
								Hardwood	2					
67	RT	3	HS	12	60	20	60	Conifer						ALSO ROAD BED
								Hardwood						
83	LF	2	HS	60	50	30	50	Conifer						OR PLAN SITE 274 END MARKER
								Hardwood						
83	LF	3	HS	30	30	0	80	Conifer		1	4			
								Hardwood						
83	RT	3	HS	25	70	10	30	Conifer						
								Hardwood	2	2	2			
83	RT	2	HS	10	30	25	75	Conifer						
								Hardwood						
83	LF	1	HS	60	70	5	55	Conifer						457897, 4811716
								Hardwood	14	4	2			

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP** SITE ID: **246** LOST CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	20		457609, 4812934	T = 16 C
3	RI	00	45			CA-CT
5	RI	00	64.5	BC		TYEE RD, OLD CAR RIM
7	LP	00	138			OLD CAR RIM IN CREEK
10	RB	00	210.5			OLD CAR RIM IN CREEK
12	SR	00	220		H = .2 M	
17	RI	00	372.6	HS, HS		PINK FLAG = STRUC. 1 20 BL
18	LP	00	400.6		2" FISH	U 17 = CABLE IN STREAM
19	RR	00	429.3	/CS, /CE		
20	LP	00	432.9	HS		
21	RI	00	467.2	HS		FLAG=AQ. INV. PROJ. U 27
22	RI	01	477.2	TJ/		PINK FLAG = SITE 4, 3 LOGS
23	CB	11	477.2			U 22 = T=14 C, 457730, 48125
24	LP	11	477.2		457736, 4812584	
25	RI	01	519.2	HS		PINK FLAG = SITE 5, 4 LOGS
28	RI	00	574.7	HS		
29	LP	00	596.7			CA-CT
30	CR	00	618.2			CT-CT
31	RI	00	650.2			CA-CT
33	RI	00	683.9			CT-CT
34	RI	00	717.9	HS		PINK FLAG = SITE 8, 6 LOGS

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 4-UMP SITE ID: 246 LOST CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
36	RI	01	765.7	TJ/		
37	CB	11	765.7			T = 14 C
39	RI	00	847.7	HS		
44	SR	00	877.5		H = 1.1 M	
45	RI	00	908.5	HS		CA-CT
47	RP	00	932.5			PINK FLAG = SITE 11, 15 BLD
48	RR	00	944.5			U 47=FLAG AQ INV PROJ RIP
49	RI	00	963.5	/SS, WL		ELK TRAIL, CT-CT
51	RR	00	974.5			CA-CT
52	RI	00	990.1	HS		
53	LP	00	1022.9			CT-CT
55	LP	00	1048.9			5" FISH
57	LP	00	1099.1			FLAG = SNORKEL POOL 5
59	RB	00	1142.7			GREEN FLAG = SITE 1, 3 LO
63	LP	00	1172.7	SS/		CT-CT
66	RR	00	1199.3			FLAG=SITE 13, 6 BLDRS, 2 L
67	RI	00	1217.5	HS		FLAG=AQ INV PROJ RIP 5 U
72	SR	00	1279.6			CT-CT
76	LP	00	1323.2			FLAG = SNORKEL POOL 8
80	RB	00	1422.1	/CS		ALDER LOGS PLACED ALON
81	SB	00	1423.1	/CS		CABLE IN CREEK

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 4-UMP SITE ID: 246 LOST CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
82	RB	00	1456.1	/CS		
83	LP	00	1474.1			END OR PLAN, CA-CT
84	RI	00	1482.4			CH-MV
89	SC	00	1502.1	/CE		
90	LP	00	1510.1			CT-CT
98	SR	00	1554.5			CT-CT
100	LP	00	1593.5			LOTS OF FRY
103	LP	00	1643.5	FC		2 WIRES OVER STREAM
105	RI	00	1691.7			FLAG= AQ INV PROJ RIP 7, U
106	SR	00	1694.7	HS		
107	RI	00	1713.7	HS	458033, 4811571	FISH, CABLE IN WATER
112	LP	00	1785.2	HS		FLAG=SNORKEL POOL 12 U
119	SD	00	1860	BD		
120	BP	00	1867	BV		20 JV FISH
123	SD	00	1921	BD	H = .5 M	
124	BP	00	1971	BV		PINK FLAG = SITE 18, 2 LOG
125	RI	00	1992	HS		CA-CT
127	PP	00	2022			PINK FLAG = SITE 19, 3 LOG
128	RR	00	2030	HS		
129	RI	01	2049	TJ/, HS		T = 17 C
130	CB	11	2049		TJ/ 0458168, 4811348	TRIB T = 15 C

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP** SITE ID: **246** LOST CREEK 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>
132	LP	00	2078.4			FLAG=SNORKEL POOL 14 T
138	RI	00	2179.5		FLAG=AQ INV PROJ RIP 9	ONE SMALL POCKET IN THI
140	RR	00	2215.5	RF		
141	RI	00	2229.5		ROAD FORD	
145	RI	00	2284.8		WILDLIFE PATH INTO BL	FISH
147	LP	00	2313.3			1 M DEEP UNDERCUT BANK
149	RI	00	2356.8		6 INCH FISH	
150	SR	00	2361.8			MOST OF SURVEY WAS CT-
151	LP	00	2365.8		END	END

