

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

STREAM: Lost Creek (W-229)
BASIN: Molalla River
SURVEY TYPE: Post-Tx
DATE: July 5, 2005
SURVEY CREW: Kaylea Foster, Jeff Snyder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 18.5 km²
USGS MAPS: Rooster Rock
ECOREGION: Cascades Western Central

GENERAL DESCRIPTION:

The Lost Creek habitat survey extended 878 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.8 (range: 1.2-2.4). Land use for the reach was timber harvest. The average unit gradient was 4.4 percent. Cascades (60%) dominated stream habitat. Boulders (28%), cobble (27%) and gravel (23%) dominated stream substrate. Wood volume was very high at 49.1 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

T07S-R04E-S01SW

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	1.8	VWI Range:	1.2 - 2.4

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	878	5,100	0
Secondary Channel	136	408	2
Off-Channel Units	55	30	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 5.1	Width: 10.7	17.8 (11.5 - 23.5)	15.8 (15.8 - 15.8)
Depth: 0.52	Height: 0.9	1.8 (1.4 - 2.2)	3.9 (3.9 - 3.9)

W:D ratio: 11.9
 Stream Flow Type: MF
 Average Unit Gradient: 4.4%
 Water temperature (°C): 11.0 - 11.0

Entrenchment (ACW:FPW ratio): 1.7
 Habitat Units/100m (total channel length): 4.5
 Habitat Units/100m (primary channel length): 5.5

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	9%	Reach avg: 87%
Undercut Banks:	0%	Range: 44 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	126	14.4
Volume (m ³):	431	49.1
Key pieces (>=12m x 0.60m):	11	1.3

OREGON DEPT OF FISH AND WILDLIFE

LOST CREEK POST-TX (8-W, 229)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/5/2005

REACH 1		T07S-R04E-S01SW					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	23	656	4.4	0.42	3,311	1,351	2	13	22	25	35	2
DRY CHANNEL	1	36	3.0	0.00	108	50	0	5	20	35	40	0
POOL-DAMMED	1	12	8.0	0.85	96	14	0	40	25	20	15	0
POOL-ISOLATED	1	3	1.0	0.20	3	0	10	90	0	0	0	0
POOL-LATERAL SCOUR	4	48	6.1	0.95	302	47	0	25	33	24	16	3
POOL-PLUNGE	2	26	8.3	1.30	220	44	0	25	23	38	15	0
POOL-STRAIGHT SCOUR	3	31	4.2	1.02	126	47	0	18	23	30	15	13
PUDDLED UNIT	1	35	3.0	0.10	105	50	0	30	25	30	15	0
RAPID/BEDROCK	1	30	5.5	0.50	165	12	0	5	10	10	15	60
RAPID/BOULDERS	7	164	5.6	0.44	916	345	0	18	25	30	25	2
RIFFLE	1	15	6.0	0.45	90	60	0	10	10	30	50	0
STEP/BOULDERS	1	6	8.0	0.30	48	40	0	5	10	40	45	0
STEP/COBBLE	1	6	7.0	0.15	39	3	0	0	40	55	5	0
STEP/STRUCTURE	1	2	7.0	0.10	11	0	0	10	30	20	40	0
Total:	48	1,069	5.1	0.52	5,538	2,063	Avg: 1	17	23	27	28	4

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	2	15	4.5	0.53	99	1.79%	14	14.1	
Scour Pools	9	105	5.9	1.05	648	11.69%	138	21.3	
Glides	0	0			0	0.00%	0	0.0	
Riffles	1	15	6.0	0.45	90	1.63%	60	66.7	
Rapids	8	194	5.6	0.45	1,081	19.52%	357	33.0	
Cascades	23	656	4.4	0.42	3,311	59.78%	1,351	40.8	
Step/Falls	3	13	7.3	0.18	97	1.75%	43	44.3	
Dry	2	71	3.0	0.05	213	3.85%	100	46.9	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	11	10.3	12.5
Pools >=1m deep:	4	3.7	4.6
Complex pools (LWD pieces>=3):	1	0.9	1.1
Pool frequency (channel widths/pool):	9.1		
Residual pool depth (avg):	0.78		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

LOST CREEK POST-TX
GCG: 8-W SITE ID: 229

Survey Date 7/6/2005

RIPARIAN ZONE

Report Date: 4/26/2006

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	1463
Total conifers/1000 ft	569
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	0

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	12.7	1.0	2.7	2.0	4.7	3.0	20.0
15-30cm	0.3	2.7	1.0	1.0	1.7	0.3	3.0	4.0
30-50cm	0.7	0.0	0.7	0.0	1.0	0.0	2.3	0.0
50-90cm	0.0	0.0	0.7	0.0	0.3	0.0	1.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	15.3	3.3	3.7	5.0	5.0	3.1	8.0

Canopy closure and ground cover

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	81		78		76	
Shrub cover	43		45		52	
Grass/forb cover	49		35		39	

Predominant landform in each zone

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	67		83		100	
High terrace	17		17		0	
Low terrace	17		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	47		37		57	

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	1463
Total conifers/1000 ft	569
Total conifers >20" dbh/1000 ft	61
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	3.0	20.0
15-30cm	3.0	4.0
30-50cm	2.3	0.0
50-90cm	1.0	0.0
>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		
16	LF	2	HT	0	95	5	30	Conifer					1	
								Hardwood	2					
16	RT	3	HS	70	70	35	60	Conifer	1	2	1			
								Hardwood						
16	RT	1	HS	100	75	10	75	Conifer		1	2			
								Hardwood	3	1				
16	LF	1	HT	0	75	20	75	Conifer						
								Hardwood	11	4				
16	RT	2	HS	14	85	5	75	Conifer	2	1	1	1		MOSS
								Hardwood	3	1				
16	LF	3	HS	75	95	15	75	Conifer			1			SAPLINGS
								Hardwood	5					
29	LF	1	HS	50	85	40	40	Conifer						
								Hardwood	6	1				
29	RT	3	HS	20	90	60	30	Conifer	2	1	1	1		
								Hardwood						
29	RT	2	HS	20	80	70	20	Conifer		2				
								Hardwood	2					
29	RT	1	LT	0	90	90	10	Conifer						
								Hardwood	5	2				
29	LF	3	HS	50	80	70	20	Conifer	3	2				
								Hardwood	3	1				
29	LF	2	HS	50	50	40	50	Conifer						
								Hardwood						
35	RT	2	HS	65	90	90	5	Conifer						
								Hardwood	1					
35	LF	2	HS	70	70	60	30	Conifer	1		1			
								Hardwood		2				
35	RT	3	HS	55	70	80	10	Conifer						
								Hardwood	4					
35	LF	3	HS	70	50	50	40	Conifer						
								Hardwood	2					
35	RT	1	HS	60	80	30	65	Conifer						
								Hardwood	5					
35	LF	1	HS	70	80	70	30	Conifer						
								Hardwood	8					

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **8-W** SITE ID: **229** LOST CREEK POST-TX

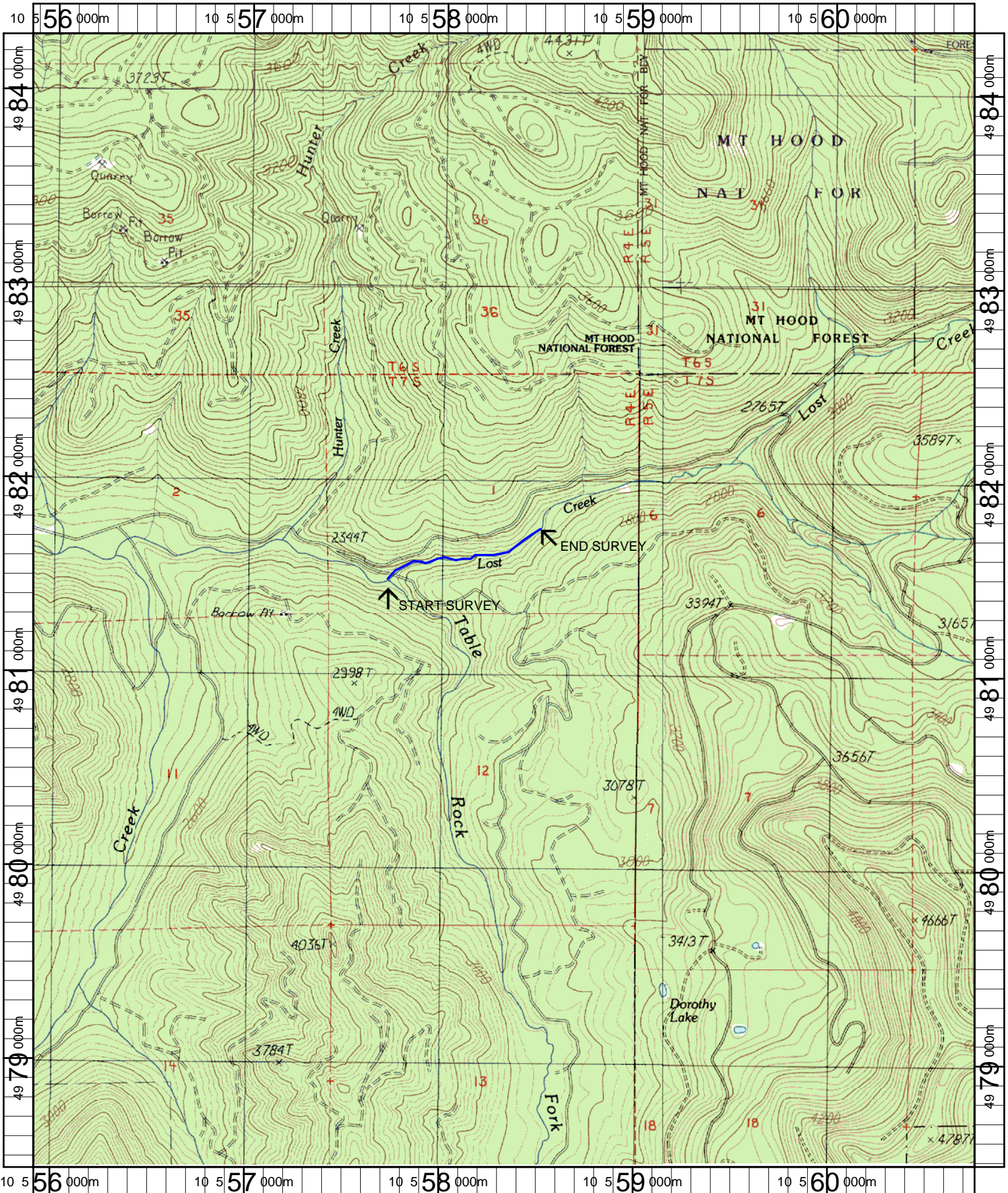
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	CB	00	40	BC	BC	T = 11 C
2	RB	00	59			4981524, 0557775
5	RI	00	142		LI/	
7	PP	00	186			DIPPERS
8	SB	00	192		LI/	
10	RR	01	239	/SS, TJ/	TJ/	
11	CB	11	239			T = 9 C
12	PP	00	253	ES/, /LS	/LI	T = 10.5 C
13	CB	01	292	TJ/	ES, /LS, TJ/	T = 9 C
14	IP	10	292	ES		SALMON FRY
19	CB	01	397			POCKET .9 M DEEP
21	DC	02	419	HS		
22	SP	00	430	HS		
23	CB	00	455	HS, /ES		FLAG = U 20 RI 07-31-00 JR/T
26	CB	01	534	DJ, LS/	HS, DJ	
27	SS	01	535.5	HS	H = .45 M	H = .45 M
31	LP	00	564		FLAG=U 26 7-31-00	
32	CB	00	597			POCKET .8 M DEEP
33	CB	00	647			/CLEARCUT 30 - 50M FROM
34	RB	01	680	HS	TJ	/TH
35	CB	11	680	DJ, /TJ	ACW = 2.5 M	T = 9 C

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **8-W** SITE ID: **229** LOST CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
36	CB	01	730		LI/	
37	CB	01	742	LA/		
38	LP	01	750.5	DJ		
42	CB	11	768.5			T = 9 C, DEPTH ESTIMATED
43	CB	00	788.5	/LA	/LA	
46	LP	00	845.5			FLAG = U 41, 2000
47	CB	01	877.5	/TJ		
48	CB	11	877.5			END SURVEY



Name: ROOSTER ROCK
 Date: 5/2/2006
 Scale: 1 inch equals 2000 feet

Location: 10 558311 E 4981383 N
 Caption: LOST CREEK RESTORATION SITE - MOLALLA BASIN