

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

STREAM: Lost Creek (W-229)
BASIN: Molalla River
SURVEY TYPE: Pre-Tx
DATE: July 15, 2004
SURVEY CREW: Erin Richmond, Carmen Vandyke
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 917 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.6 (range: 1.0-8.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 5.9 percent. Cascades (54%) dominated stream habitat. Boulders (35%) and cobble (24%) dominated stream substrate. Wood volume was moderate at 25.6 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

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	2.6	VWI Range:	1 - 8

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	917	5,380	0
Secondary	227	760	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 4.9	Width: 14.6	17.2 (10.8 - 25.9)	20.2 (20.2 - 20.2)
Depth: 0.43	Height: 0.7	1.4 (1.2 - 1.6)	1.5 (1.5 - 1.5)

W:D ratio: 21.1

Stream Flow Type: MF

Average Unit Gradient: 5.9%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 4.7

Habitat Units/100m (primary channel length): 5.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	D15	M30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 90%
Undercut Banks:	0%	Range: 67 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	203	22.1
Volume (m ³):	234	25.6
Key pieces (>=12m x 0.60m):	7	0.8

OREGON DEPARTMENT OF FISH AND WILDLIFE

LOST CREEK PRE-TX (W-229)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/15/2004

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/BEDROCK	3	52	4.1	0.24	240	25	0	5	8	10	10	67
CASCADE/BOULDERS	20	566	5.1	0.30	3,058	565	0	8	15	26	45	6
DRY CHANNEL	2	64	4.4	0.00	370	35	3	11	16	38	32	0
POOL-LATERAL SCOUR	5	68	4.8	0.74	339	20	3	24	27	24	15	7
POOL-PLUNGE	12	95	5.2	0.83	593	55	1	12	19	28	23	17
PUDDLED UNIT	1	57	3.0	0.01	171	10	6	6	33	33	22	0
RAPID/BOULDERS	6	220	6.0	0.28	1,250	145	0	8	14	29	47	2
RIFFLE W/ POCKETS	1	15	4.8	0.40	73	0	0	32	32	21	5	11
STEP/BEDROCK	1	1	1.6	0.10	1	0	0	0	0	0	0	100
STEP/BOULDERS	3	7	3.2	0.20	45	70	0	2	2	3	87	7
Total:	54	1,143	4.9	0.43	6,140	925	Avg: 1	10	16	24	35	13

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	0	0			0	0.00%	0	0.0
Scour Pools	17	163	5.1	0.81	932	15.18%	75	8.0
Glides	0	0			0	0.00%	0	0.0
Riffles	1	15	4.8	0.40	73	1.20%	0	0.0
Rapids	6	220	6.0	0.28	1,250	20.37%	145	11.6
Cascades	23	618	4.9	0.29	3,298	53.71%	590	17.9
Step/Falls	4	7	2.8	0.18	45	0.74%	70	154.4
Dry	3	121	3.9	0.00	541	8.81%	45	8.3
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	Total	# / Km	# / Km
All Pools:	17	14.9	18.5
Pools >=1m deep:	4	3.5	4.4
Complex pools (LWD pieces>=3):	2	1.7	2.2
Pool frequency (channel widths/pool):	4.6		
Residual pool depth (avg):	0.65		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	792
Total conifers/1000 ft	650
Total conifers >20" dbh/1000 ft	0
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	0.7	2.0	1.7	2.3	1.3	1.0	3.7	5.3
15-30cm	0.7	3.0	2.7	2.0	3.3	2.0	6.7	7.0
30-50cm	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.7
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.7	5.3	4.3	4.3	4.7	3.3	3.6	4.3

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	53	80	77
Shrub cover	18	26	34
Grass/forb cover	19	22	16

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	83	83	100
High terrace	17	17	0
Low terrace	0	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 (%)	86	81	82

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		
15	RT	2	HS	120	80	30	20	Conifer							
								Hardwood	2	1					
15	RT	1	HS	120	70	20	10	Conifer		1					
								Hardwood	1	2					
15	LF	3	HS	70	90	60	30	Conifer		2					
								Hardwood		3	1				
15	LF	2	HS	70	90	50	40	Conifer	2	1					
								Hardwood	2	3					
15	RT	3	HS	90	90	40	20	Conifer		2					
								Hardwood							
15	LF	1	HS	95	70	20	10	Conifer	2						
								Hardwood							
27	RT	3	HS	12	60	30	10	Conifer							
								Hardwood	3	3					
27	LF	2	HS	40	90	10	10	Conifer	1	3					
								Hardwood							
27	RT	1	HT	90	60	20	40	Conifer							
								Hardwood	2	3					
27	LF	1	HS	30	0			Conifer		1					
								Hardwood	1	3					
27	RT	2	HT	15	90	10	20	Conifer							
								Hardwood	3	2					
27	LF	3	HS	80	90	20	10	Conifer	2	2					
								Hardwood							
38	RT	3	HS	120	60	20	10	Conifer			3				
								Hardwood							
38	RT	2	HS	120	70	30	20	Conifer	1	2					
								Hardwood							
38	RT	1	HS	90	60	20	30	Conifer							
								Hardwood	2	1					
38	LF	3	HS	120	70			Conifer	2	1					
								Hardwood							
38	LF	2	HS	120	60			Conifer	1	2					
								Hardwood							
38	LF	1	HS	90	60	10	5	Conifer			1			INACTIVE	
								Hardwood			1			LANDSLIDE	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 8-W SITE ID: 229 LOST CREEK PRE-TX (W-229)

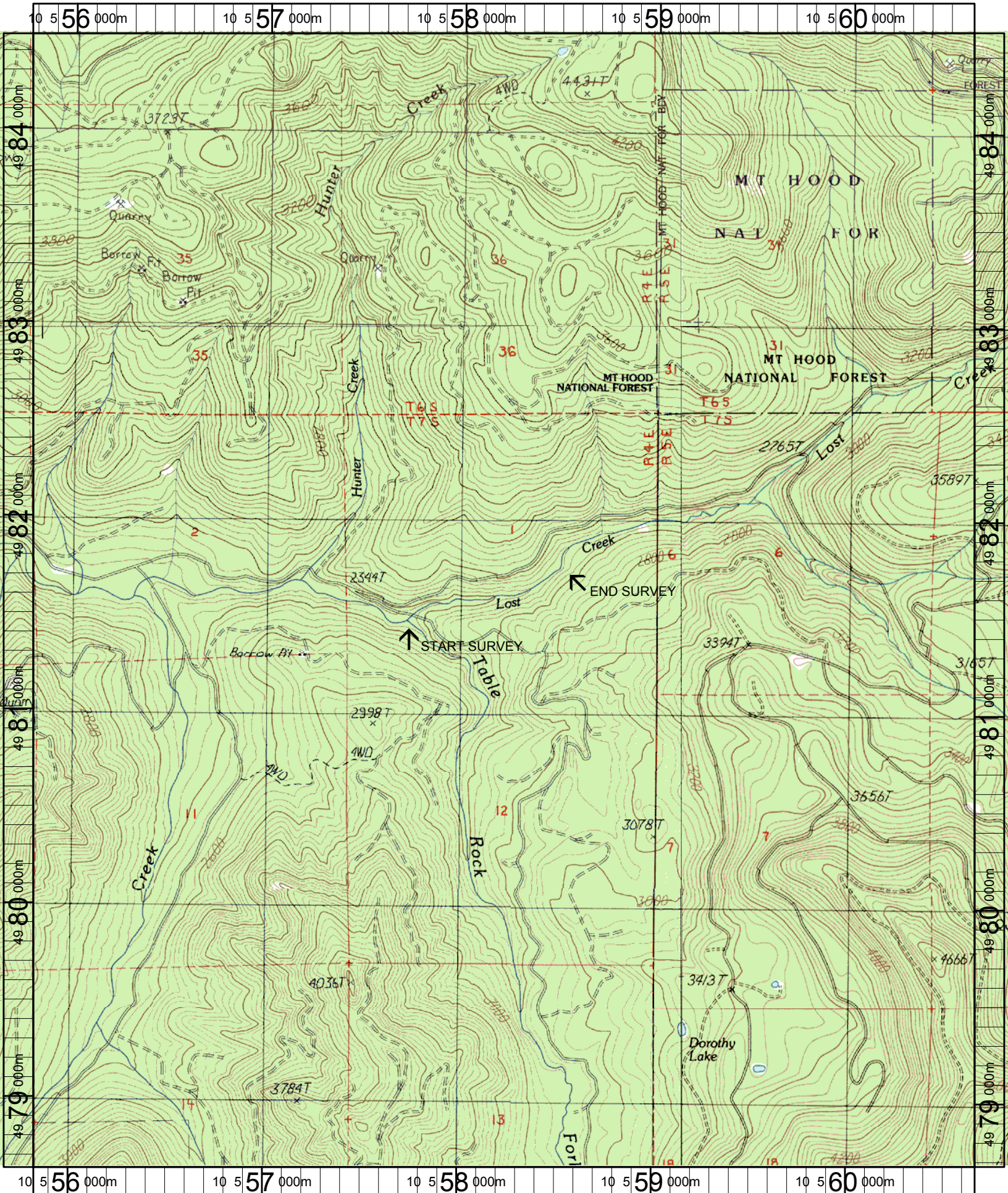
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	CB	00	55.3	BC	START BC	T=14 DEG C AT12:00
3	CB	00	78.3		LOTS OF FISH	
9	SB	00	187.5		H=1.2	
12	PP	00	228.8	/SS		
13	CB	01	238	/LI TJ/	TJ/	
14	CB	11	238			T=14 DEG C, ACW=1.0M
15	PP	00	254.2		RIP 1	RIP 1, METRICS
16	CB	00	296.2	DJ/		
17	RB	01	326.7	TJ/	DJ	
18	CR	11	326.7			T=13 DEG C ACW=1.0M
19	PP	00	332.9		SS/	
23	CB	01	435.4	/DJ		
25	LP	00	447.6			RED FLAG
27	RB	01	516.7	WL		RIP 2, METRICS, DEER
28	CB	01	538.3	WL		DIPPER
29	RB	01	569.8	SS/		
31	PP	00	578.2		FLAG, END OF UNIT 26	FLAGGING
33	RP	00	620.6			POCKET 0.9M
35	RB	01	705.2	/TJ	RED FLAGS /TJ	POCKET= .6M
38	CB	01	753.8	LI/ DJ/		RIP 3, METRICS
42	SB	01	783.4		H=.6	H=.6

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 8-W SITE ID: 229 LOST CREEK PRE-TX (W-229)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
45	SR	02	783.4		H=.4	H=.4
46	LP	02	783.4	DJ/		
47	SB	02	783.4		H=.7	H=.7
50	CB	00	850.5	SS/ DJ/	SS/	BRAIDED CHANNEL
51	CB	00	866.9	/DJ		
53	CB	01	916.7	DJ TJ/	/TJ	END SURVEY
54	CB	11	916.7		END	



Name: ROOSTER ROCK
 Date: 8/10/2004
 Scale: 1 inch equals 2000 feet

Location: 10 558214 E 4981584 N
 Caption: LOST CREEK RESTORATION SITE - MOLALLA BASIN