

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

STREAM: Lost Creek (NC-346)
BASIN: NF Nehalem River
SURVEY TYPE: Pre-Tx
DATE: February 20, 2007
SURVEY CREW: Scott Sebring, Matthew Strickland
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 4.6 km²
USGS MAPS: Hamlet
ECOREGION: Coast Range Willapa Hills

GENERAL DESCRIPTION:

The Lost Creek habitat survey extended 2,972 meters. The channel was alternately constrained by hillslope and terrace in a broad valley floor. The average valley width index was 2.8 (range: 1-4). Land use for the reach was second growth timber (15-30 cm dbh) and young timber (3-15 cm dbh). The average unit gradient was 2.2 percent. Rapids (53%) and riffles (27%) dominated stream habitat. Gravel (48%) and cobble (31%) dominated stream substrate. Wood volume was low at 19.5 m³/100m.

COMMENTS:

There was one potential natural barrier to upstream fish migration in the form of a debris jam with cabled logs at 1,411 meters into the surveyed reach.

1 culvert (diameter 2.7m, no drop) was recorded at 2,693 meters into the survey reach.

Minimal beaver activity was recorded at downstream end of the survey reach.

REACH 1

T04N-R08W-S19SW

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	2.8	VWI Range:	1 - 4

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	2,972	16,075	0
Secondary Channel	76	139	0
Off-Channel Units	169	236	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 13	<u>First Terrace</u> n = 9
Width: 4.8	Width: 8.6	14.4 (7.3 - 32.8)	15.5 (8 - 30)
Depth: 0.38	Height: 0.6	1.1 (1 - 1.5)	1.5 (1.2 - 1.8)

W:D ratio: 15.4
 Stream Flow Type: HF
 Average Unit Gradient: 2.2%
 Water temperature (°C): 7.5 - 7.5

Entrenchment (ACW:FPW ratio): 1.6
 Habitat Units/100m (total channel length): 3.5
 Habitat Units/100m (primary channel length): 3.8

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	788	26.5
Volume (m ³):	580	19.5
Key pieces (>=12m x 0.60m):	4	0.1

OREGON DEPT OF FISH AND WILDLIFE

LOST CREEK PRE-TX (1-NC, 346)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

2/20/2007

REACH 1		T04N-R08W-S19SW					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	6	186	4.2	0.23	1,028	0	3	2	13	3	1	78
CASCADE/BOULDERS	7	91	1.9	0.14	411	0	0	3	56	35	0	5
CULVERT CROSSING	1	13	2.7	0.20	35	0	0	0	50	50	0	0
POOL-BACKWATER	4	41	2.4	0.61	98	0	65	18	18	0	0	0
POOL-DAMMED	1	5	5.2	0.85	28	0	0	20	50	30	0	0
POOL-ISOLATED	1	7	1.8	0.40	13	0	60	40	0	0	0	0
POOL-LATERAL SCOUR	18	198	6.4	0.88	1,268	0	2	15	59	14	0	10
POOL-PLUNGE	5	32	7.7	0.92	262	0	5	1	63	21	0	10
RAPID/BOULDERS	44	1,758	4.6	0.23	8,711	0	0	2	43	50	3	2
RIFFLE	20	867	4.9	0.26	4,492	0	2	9	63	27	0	0
STEP/BEDROCK	2	7	4.5	0.28	32	0	0	0	0	0	0	100
STEP/LOG	4	11	6.4	0.16	74	0	0	10	65	25	0	0
Total:	113	3,217	4.8	0.38	16,450	0	Avg: 4	6	48	31	1	9

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	6	53	2.8	0.62	138	0.84%	0	0.0	
Scour Pools	23	230	6.7	0.89	1,530	9.30%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	20	867	4.9	0.26	4,492	27.31%	0	0.0	
Rapids	44	1,758	4.6	0.23	8,711	52.95%	0	0.0	
Cascades	13	277	3.0	0.18	1,438	8.74%	0	0.0	
Step/Falls	6	18	5.8	0.20	105	0.64%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	13	2.7	0.20	35	0.21%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	29	9.0	9.8
Pools >=1m deep:	5	1.6	1.7
Complex pools (LWD pieces>=3):	15	4.7	5.0
Pool frequency (channel widths/pool):	12.9		
Residual pool depth (avg):	0.56		

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 1-NC SITE ID: 346 LOST CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
1	CR	00	18.7		CH/MV/ST/YT/D15/S
5	RB	00	104	SS/	
7	SR	00	119.4		H=0.90M
11	SL	00	203.9		H=0.90M
12	RI	01	257.4	/TJ	US/MT/ST/YT/D15/S
13	CB	11	257.4		ACW=1.60M, T=7.5C AT 13:31
20	RI	01	471.1	TJ/	
21	RB	11	471.1	BV	ACW=2.80M, T=8.0C AT 14:19
23	RI	00	531.9		CT/CT/ST/YT/D30/S
25	LP	00	556.9	BV	
26	RI	01	606.9	/SS	
31	RB	01	714	/TJ	
32	CB	11	714		ACW=0.70M
33	RI	00	764		CA/MT/ST/YT/D15/S
38	RB	01	920.6	/TJ	
39	CB	11	920.6		ACW=1.70M, T=8.5C AT 14:11
44	RB	00	1012.8		CA/MT/ST/YT/D15/S
45	RB	01	1030.8	/TJ	
46	CB	11	1030.8		ACW=1.10M
51	LP	00	1226.8	/SS	CA/CT/ST/YT/D15/S
52	RB	01	1276.8	TJ/	

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 1-NC SITE ID: 346 LOST CREEK PRE-TX

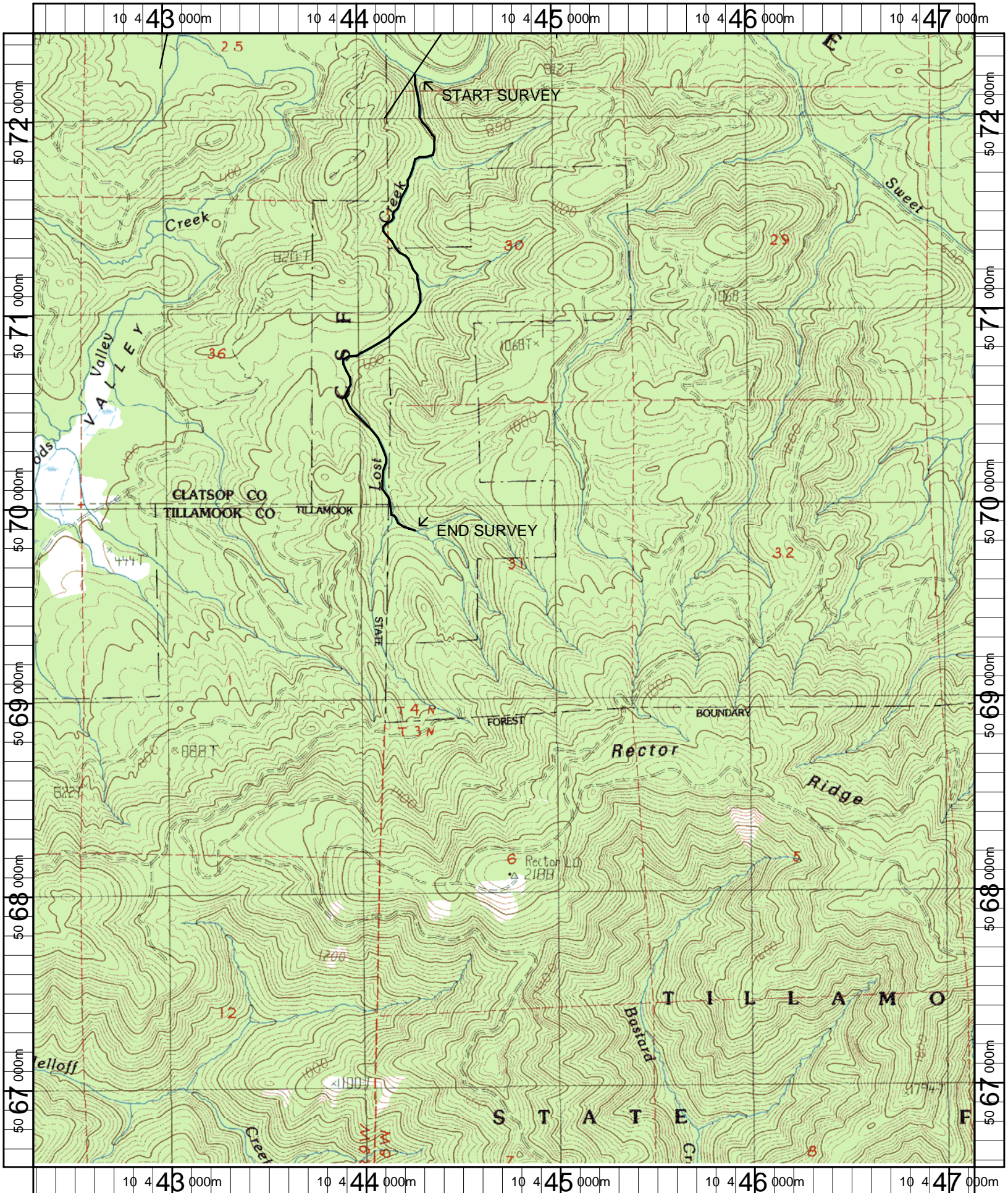
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
53	RI	11	1276.8		ACW=3.10M, T=8.5C AT 15:24
54	RB	01	1326.8	TJ/	
55	RB	11	1326.8	SS/	ACW=0.80M, T=8.5C AT 15:32
57	PP	01	1365.7	TJ/	
58	CB	11	1365.7		ACW=2.20M, T=8.0C AT 15:42
59	CB	00	1411.7	PN	DJ, LOTS OF CABLED LOGS
60	RI	01	1461.7	CH/OV/ST/Y	
63	RI	00	1561.7		ANASTOMISING CHANNEL (59-66)
64	RI	01	1611.7	TJ/	
65	RB	11	1611.7		ACW=1.80M
66	RI	01	1661.7	TJ/	
67	RB	11	1661.7		ACW=1.70M
68	RB	00	1711.7		CH/OV/ST/YT/D15/S
72	LP	00	1860.7		START OF OR PLAN SURVEY 1066
75	RI	00	2010.7		CA/CT/ST/YT/D15/S
78	RB	00	2092.2	/SS	
80	RB	01	2147.5	/TJ	
81	CR	11	2147.5		ACW=1.50M
82	RB	00	2191		CA/CT/YT/ST/D15/S
84	SL	00	2200.5		H=0.60M
91	SL	00	2404.5		H=0.95M

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 1-NC SITE ID: 346 LOST CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
92	RB	00	2454.5		CH/MV/YT/ST/D15/S
95	SL	00	2476		H=0.50M
97	LP	01	2539.2	TJ/	
98	CR	11	2539.2		ACW=0.75M
99	RB	01	2589.2	SS/	
103	RB	01	2639.2	TJ/	CT/CT/YT/ST/D15/S
104	CB	11	2639.2		ACW=1.80M
105	RB	01	2680.7	TJ/	
106	RB	11	2680.7		ACW=1.90M
107	CC	00	2693.7	CC	NO DROP, DIA=2.70M
112	RB	00	2886.9		ANASTOMISING CHANNEL
113	RB	00	2971.9		CT/CT/YT/ST/D15/S



Name: HAMLET
 Date: 4/26/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0444733 E 5069512 N
 Caption: LOST CREEK RESTORATION SITE - NEHALEM BASIN