

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

STREAM: Lost Creek (NC-346)  
BASIN: Nehalem River  
SURVEY TYPE: Pre-Tx  
DATE: March 12, 2008  
SURVEY CREW: Matt Weeber, Sharon Tippery  
REPORT PREPARED BY: Sharon Tippery  
BASIN AREA: 4.6 km<sup>2</sup>  
USGS MAPS: Hamlet  
ECOREGION: Coast Range Willapa Hills

**GENERAL DESCRIPTION:**

The Lost Creek habitat survey extended 3,079 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 2.9 (range: 1-4.5). Land use for the reach was second growth timber (15-30cm dbh) and young trees (3-15cm dbh). The average unit gradient was 3.1 percent. Rapids (35%), riffles (26%) and scour pools (26%) dominated stream habitat. Gravel (56%), cobble (15%) and sand (14%) dominated stream substrate. Wood volume was 18.3m<sup>3</sup>/100m.

**COMMENTS:**

One potential natural barrier to upstream fish migration, a debris jam creating a step over wood, was recorded 1,463m into the surveyed length.

Eleven debris jams and two landslides were noted in the survey.

Minimal beaver activity was noted in the survey. An unidentified fish, three redds, several amphibian egg masses, winter wrens, an American dipper, an elk trail, and trilliums were observed during the survey.

**OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY**

**LOST CREEK  
GCG: 1-NC SITE ID: 346**

**Survey Date: 3/11/2008**

**Report Date: 5/6/2008**

**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	2.9	VWI Range:	1 - 4.5

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	3,079	11,549	0
Secondary	255	416	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 12	<u>First Terrace</u> n = 8
Width: 3.5	Width: 5.2	8.1 ( 5.5 - 16.7 )	9.0 ( 5.6 - 13.7 )
Depth: 0.37	Height: 0.3	0.7 ( 0.6 - 0.8 )	0.8 ( 0.7 - 1 )

W:D ratio: 15.7

Stream Flow Type: MF

Average Unit Gradient: 3.1%

Water temperature (°C): 6.0 - 6.0

Entrenchment (ACW:FPW ratio): 1.6

Habitat Units/100m (total channel length): 6.7

Habitat Units/100m (primary channel length): 7.3

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	D30	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):	437	14.2
Volume (m <sup>3</sup> ):	562	18.3
Key pieces (>=12m x 0.60m):	10	0.3

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HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	10	183	3.6	0.21	731	0	0	4	24	3	0	70
CASCADE/BOULDERS	6	70	1.5	0.10	133	0	9	18	54	17	2	1
CULVERT CROSSING	1	12	2.1	0.15	26	0	0	0	70	25	5	0
DRY CHANNEL	1	10	1.3	0.00	13	0	0	5	50	35	10	0
POOL-BACKWATER	11	56	2.7	0.47	154	0	38	34	20	2	0	6
POOL-ISOLATED	9	31	1.7	0.37	58	0	42	38	20	0	0	0
POOL-LATERAL SCOUR	69	685	3.8	0.66	2,692	0	2	18	65	10	1	4
POOL-PLUNGE	10	51	5.0	0.75	245	0	3	21	51	9	1	16
POOL-STRAIGHT SCOUR	5	52	4.2	0.63	217	0	2	20	56	9	2	11
RAPID/BEDROCK	2	61	3.3	0.28	204	0	0	10	33	0	0	58
RAPID/BOULDERS	40	1,118	3.4	0.17	4,095	0	0	3	55	34	5	3
RIFFLE	38	951	3.2	0.17	3,181	0	1	7	69	19	1	3
STEP/BEDROCK	4	13	3.8	0.18	51	0	0	1	3	0	0	96
STEP/COBBLE	9	30	3.7	0.14	118	0	0	1	70	29	0	0
STEP/LOG	9	13	3.8	0.11	48	0	1	19	70	5	3	2
<b>Total:</b>	224	3,334	3.5	0.37	11,965	0	<b>Avg:</b> 5	14	56	15	1	9

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	20	87	2.3	0.42	212	1.77%	0	0.0
Scour Pools	84	788	4.0	0.67	3,155	26.36%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	38	951	3.2	0.17	3,181	26.59%	0	0.0
Rapids	42	1,179	3.4	0.17	4,298	35.92%	0	0.0
Cascades	16	252	2.8	0.17	863	7.21%	0	0.0
Step/Falls	22	55	3.7	0.13	217	1.82%	0	0.0
Dry	1	10	1.3	0.00	13	0.11%	0	0.0
Culverts	1	12	2.1	0.15	26	0.22%	0	0.0

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REACH 1

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**POOL SUMMARY**

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	104	31.2	33.8
Pools >=1m deep:	6	1.8	1.9
Complex pools (LWD pieces>=3):	25	7.5	8.1
Pool frequency (channel widths/pool):	6.1		
Residual pool depth (avg):	0.48		

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COMMENT SUMMARY

MONITORING AREA: 1-NC      SITE ID: 346      STREAM: LOST CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
3	RR	00	54.6		TRILLIUM, SALMONBERRY BLOSSOM
6	RR	00	109.3	WL	WINTER WREN
10	CR	00	151.2	DJ	
17	LP	00	230.4	DJ,/SS	
27	LP	00	342.8	LA/	
29	LP	01	367	DJ	0.8M UNDERCUT
39	LP	01	492.9	TJ/	
40	CB	11	492.9		ACW=1.3M, T=6.5C
45	RB	01	536.9	WL	DEER & ELK TRACKS
55	LP	00	697.1		REDD
56	RB	01	728.1	/TJ	
57	CR	11	728.1		ACW=0.4M, T=6.5C
58	LP	00	737.1	DJ	
59	RB	00	752.6		CABLE
65	LP	00	818.8	LI/	
67	LP	00	830.8		REDD
69	LP	00	843.8	DJ	
81	RI	01	1073.4	/TJ	
82	CB	00	1081.4		ACW=0.55M,T=7C
83	CR	00	1110.4	/SS	
84	LP	00	1118.4		HUCKLEBERRY BLOSSOMS
87	CR	00	1175.9	/SS	

COMMENT SUMMARY

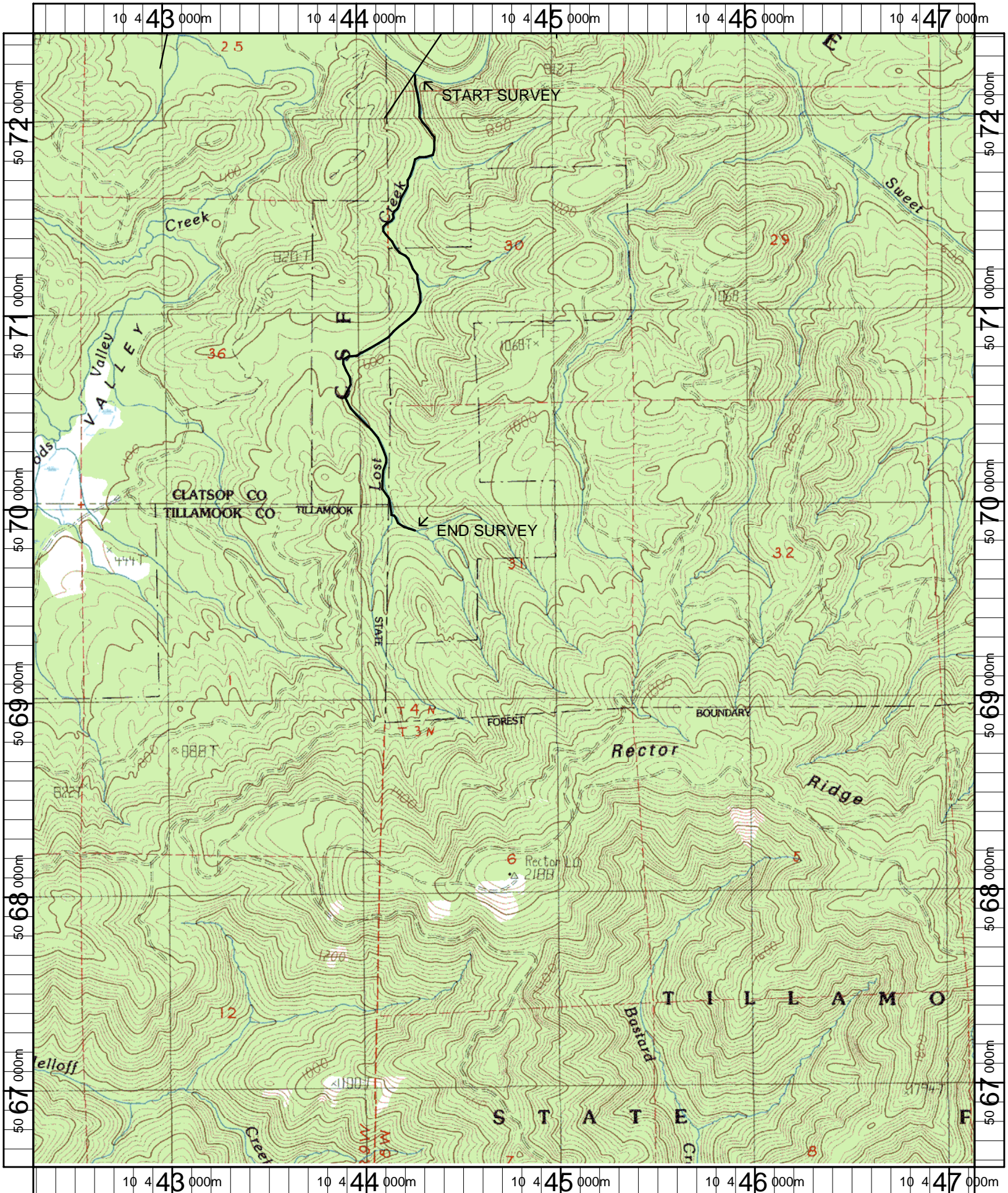
MONITORING AREA: 1-NC      SITE ID: 346      STREAM: LOST CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
92	CR	00	1221.4		SGS
93	RI	01	1234.4	SS/	
94	BW	10	1234.4	/SS	
98	LP	00	1276.5	WL	AMERICAN DIPPER, 3" FISH
101	RB	00	1380.7	SS/	
104	LP	01	1414.7	TJ/,BV	CHEWED STICK
105	CR	11	1414.7		ACW=2.1M, T=7C
108	CR	00	1452.4	DJ	
110	SL	00	1463.4	DJ,PN	
112	LP	00	1485.4	BV	CHEWED STICK
115	IP	10	1511.9	AM	6 10CM EGG MASSES ATTACHED TO STICKS IN WATER
118	RI	02	1592.9	BV	FRESHLY CHEWED STICKS
120	RI	01	1635.6	TJ/	
123	RB	11	1644.1		ACW=1.3M, T=7C
127	LP	02	1664.1	BV	CHEWED STICKS
128	RI	02	1664.1	BV	CHEWED STICKS
130	BW	10	1687.6	AM	10CM EGG MASS ON A STICK
133	LP	01	1720.1	TJ/,BV	CHEWED STICKS
134	CB	11	1720.1		ACW=0.7M,T=7C
142	LP	00	1807.2	DJ	
145	RI	00	1855.8	SS/	
154	RB	01	1956	/TJ	

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
155	RI	00	1962		ACW=0.7M,T=7C
162	LP	00	2091.8		SMALL REDDS
164	LP	00	2123.3		REDD
165	RB	00	2178.3	/SS	
167	RI	00	2241.3	/SS	
168	RI	00	2291.3		UTM FOR END DAY 1
179	RB	00	2478.3	DJ	
181	SL	00	2484.8	DJ	
195	LP	00	2629.4	WL,SS/	ELK TRAIL, FISH
204	CB	11	2709.2		ACW=0.9M,T=6C
206	RB	01	2749.7	/SS,TJ/	
210	RB	00	2780.5	DJ	
211	CC	00	2792.8	CC, CS/CS	NEW CORRUGATED METAL OPEN BOTTOM, H=1.7M, W=3.5M
215	LP	00	2891.2	WL	WINTER WREN
224	RB	00	3036.3	/SS	AQI HABITAT SURVEY #1066 SIGN & FLAG AT /SS



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