

**ODFW AQUATIC INVENTORY PROJECT  
RESTORATION MONITORING  
STREAM HABITAT REPORT**

STREAM: LOST CREEK  
 GCG: 1-NC  
 SITE ID: 372  
 BASIN: NEHALEM  
 TREATMENT DATE: 2007  
 SURVEY DATE: 3/30/2009  
 SURVEY CREW: Derrick Wheeler / Adam Smith  
 USGS MAPS: FOLEY PEAK  
 ECOREGION: Volcanics  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T03N-R09W-S27SE

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces  
 Dominant landuse(s): Second growth timber (15-30 cm dbh)  
 Dominant riparian vegetation: Conifers: size class 30-50cm dbh  
 Primary channel length (meters) and area (m<sup>2</sup>): 2,124 : 20,578  
 Secondary channel length (meters) and area (m<sup>2</sup>) 771 : 3,485  
 VWI average: 7.1 VWI Range: 2.5 - 20 Average Gradient: 1.2%  
 Pieces LWD per 100m: 10.8 Wood Volume (m<sup>3</sup>) per 100m: 19.5  
 Percent pools: 27% Complex pools (LWD pieces>=3): 14 Pools >=1m deep: 24  
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	7	16	26	27	12	13
Pool units	8	21	31	22	9	10
Fast water units	2	12	26	33	16	11

**SURVEY COMMENTS:**

The Lost Creek survey is a post-treatment, restoration site. The crew noted winter steelhead redds throughout the upper half of the survey and observed one live winter steelhead. The crew also noted juvenile coho and evidence of amphibians included rough skinned newts. There were no potential barriers to upstream fish migration observed within the survey reach.

Survey Date: 3/30/2009

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**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	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	7.1	VWI Range:	2.5 - 20

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	2,124	20,578	0
Secondary	771	3,485	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 8	<u>First Terrace</u> n = 8
Width: 7.9	Width: 14.1	18.6 ( 11.9 - 29.7 )	22.6 ( 16.2 - 32.3 )
Depth: 0.62	Height: 0.6	1.3 ( 1.2 - 1.3 )	2.8 ( 1.2 - 6.5 )

W:D ratio: 22.5

Stream Flow Type: MF

Average Unit Gradient: 1.2%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 3.5

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

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	C30	D15

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):	229	10.8
Volume (m <sup>3</sup> ):	414	19.5
Key pieces (>=12m x 0.60m):	9	0.4

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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/BOULDERS	2	15	2.3	0.13	33	0	0	0	15	22	49	14
POOL-ALCOVE	1	11	2.0	0.60	21	0	100	0	0	0	0	0
POOL-BACKWATER	4	21	4.1	0.81	92	0	28	29	24	16	3	0
POOL-ISOLATED	2	16	2.4	0.65	38	0	13	29	34	18	5	0
POOL-LATERAL SCOUR	31	702	8.4	1.14	6,177	0	8	20	31	23	9	9
POOL-PLUNGE	2	24	13.0	1.15	285	0	5	28	26	13	8	21
PUDDLED UNIT	2	67	1.9	0.23	130	0	20	33	28	20	0	0
RAPID/BEDROCK	6	247	7.1	0.51	1,776	0	0	3	10	18	13	55
RAPID/BOULDERS	7	312	9.1	0.33	3,240	0	1	10	20	32	24	13
RIFFLE	34	1,424	7.8	0.30	11,506	0	2	15	30	36	13	3
STEP/BEDROCK	4	15	7.5	0.33	103	0	0	0	0	0	0	100
STEP/BOULDERS	2	22	14.8	0.35	380	0	0	5	17	38	40	0
STEP/COBBLE	2	20	13.3	0.35	264	0	0	5	16	59	20	0
STEP/LOG	1	1	14.0	0.25	18	0	50	0	0	10	40	0
<b>Total:</b>	100	2,894	7.9	0.62	24,063	0	<b>Avg:</b> 7	16	26	27	12	13

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	7	47	3.3	0.74	151	0.63%	0	0.0
Scour Pools	33	726	8.7	1.14	6,463	26.86%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	34	1,424	7.8	0.30	11,506	47.82%	0	0.0
Rapids	13	559	8.2	0.41	5,016	20.84%	0	0.0
Cascades	2	15	2.3	0.13	33	0.14%	0	0.0
Step/Falls	9	58	11.1	0.33	764	3.18%	0	0.0
Dry	2	67	1.9	0.23	130	0.54%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE  
HABITAT INVENTORY

LOST CREEK  
GCG: 1-NC SITE ID: 372

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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:	40	13.8	18.8
Pools >=1m deep:	24	8.3	11.3
Complex pools (LWD pieces>=3):	14	4.8	6.6
Pool frequency (channel widths/pool):	5.1		
Residual pool depth (avg):	0.81		

OREGON DEPT OF FISH AND WILDLIFE  
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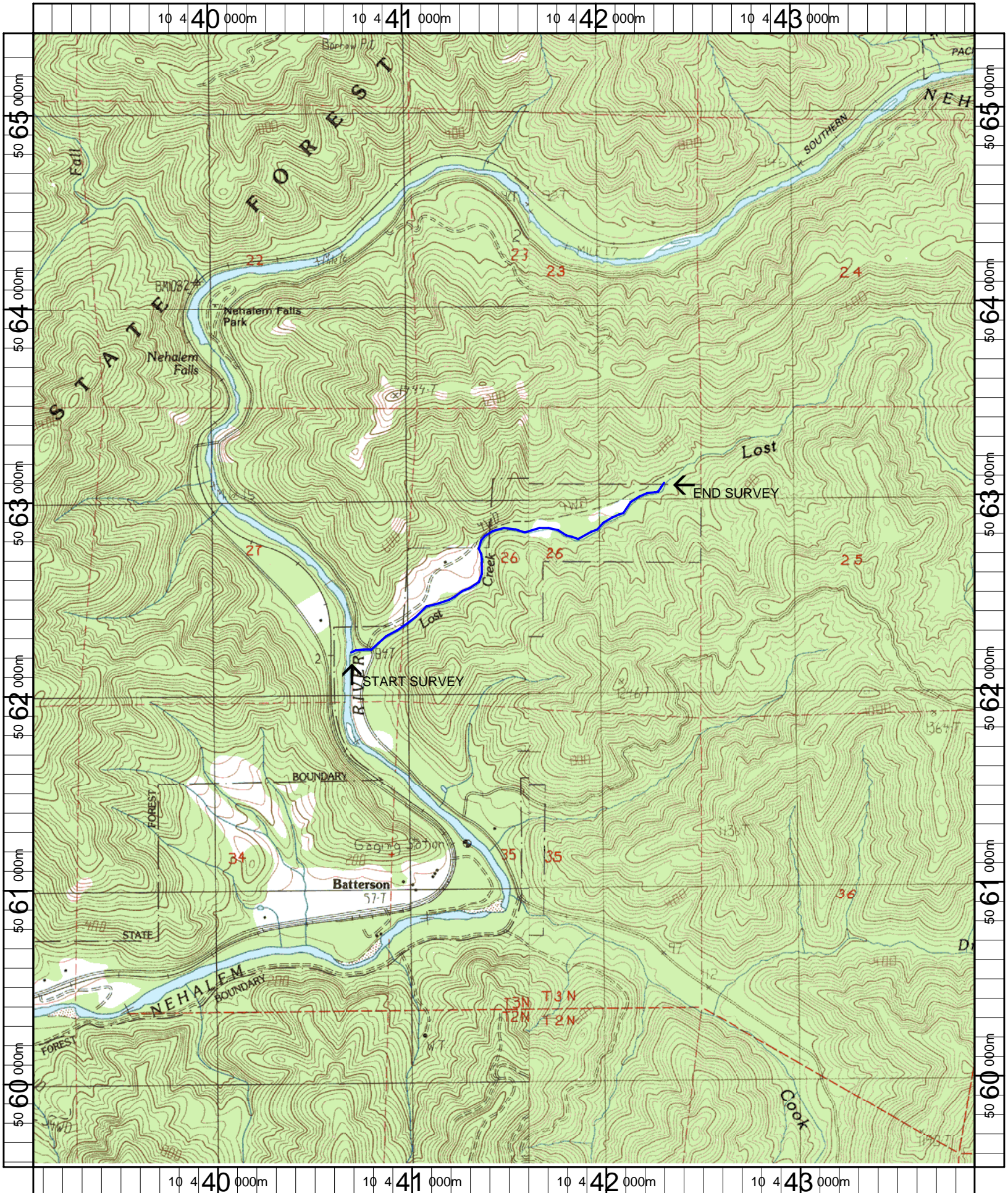
OREGON PLAN MONITORING SITE  
SURVEY DATE: 3/30/2009

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 372 STREAM: LOST CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	2	RB	00	100	BC	COOK CREEK ROAD
1	8	LP	00	328.7	SS/SS	
1	32	RB	01	886.2	TJ/	
1	33	CB	11	886.2		T=8C, ACW=5.4M
1	34	LP	00	903.6		2 STEELHEAD REDDS
1	39	RB	01	1120	TJ/	
1	40	RB	11	1120		ACW=2.8M, T=8C
1	52	BW	10	1412.5		COHO FRY
1	53	LP	01	1437.5		STEELHEAD REDD
1	59	RI	03	1437.5	AM	ROUGH-SKINNED NEWT
1	74	LP	01	1607.7		STEELHEAD REDD
1	86	LP	00	1736.7		(2) STEELHEAD REDDS
1	89	RI	01	1879.5	TJ/	
1	90	CB	00	1886.9	TJ	ACW=1.5M, T=8.5C





Name: COOK CREEK  
 Date: 1/3/2007  
 Scale: 1 inch equals 2000 feet

Location: 10 441499 E 5062478 N  
 Caption: LOST CREEK RESTORATION SITE #372 - NEHALEM BASIN



## Lost Creek (NC-372) 2009 Winter Habitat Survey Photographs



Unit 2 - A downstream view of survey from bridge.  
Standing on Cook Creek Road.



Unit 3 - A upstream view of survey from bridge.  
Standing on Cook Creek Road.



Unit 35 - Upstream view of cascade over boulders.



Upstream view of Lost Creek survey. Valley opens here and begins multiple channel section.



Huge debris jam creating multiple channel section.



Downstream view of side channel with debris jam.



Lost Creek (NC-372) 2009 Winter Habitat Survey Photographs



Upstream view of debris jam with sediment build-up in background.



Upstream view at the end of the Lost Creek survey.