

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

STREAM: Steampot Creek (N-238)  
BASIN: Trask River  
SURVEY TYPE: Reference  
DATE: July 11, 2006  
SURVEY CREW: Gordon Rose, Ben Walczak  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 6.2 km<sup>2</sup>  
USGS MAPS: Trask  
ECOREGION: Coast Range Volcanic

**GENERAL DESCRIPTION:**

The Steampot Creek habitat survey extended 466 meters. The channel was constrained by hillslopes in a steep V-shaped valley. The average valley width index was 1.3 (range: 1.2-1.5). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 3.4 percent. Rapids (44%) and scour pools (34%) dominated stream habitat. Gravel (35%) and cobble (30%) dominated stream substrate. Wood volume was very high at 53.6 m<sup>3</sup>/100m.

**COMMENTS:**

There were two potential barriers to upstream fish migration in the surveyed length. The first was a high gradient cascade at unit 14 (143 m). The second was a 1.5 m high step over log at unit 25 (273 m).

REACH 1

T02S-R07W-S21SW

REACH 1

**Valley and Channel Summary**

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	100%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	1.3	VWI Range:	1.2 - 1.5

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	466	2,010	0
Secondary Channel	107	157	1
Off-Channel Units	17	13	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<i>n = 5</i>	<u>First Terrace</u>	<i>n = 0</i>
Width: 3.9	Width: 9.2	11.6	( 9.2 - 14.2 )	( - )	( - )
Depth: 0.30	Height: 0.4	0.8	( 0.7 - 0.9 )	( - )	( - )

W:D ratio: 23.9  
 Stream Flow Type: MF  
 Average Unit Gradient: 3.4%  
 Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.3  
 Habitat Units/100m (total channel length): 8.5  
 Habitat Units/100m (primary channel length): 10.7

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	14%	Reach avg: 89%
Undercut Banks:	10%	Range: 78 - 89

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	162	34.8
Volume (m <sup>3</sup> ):	250	53.6
Key pieces (>=12m x 0.60m):	4	0.9

OREGON DEPT OF FISH AND WILDLIFE

STEAMPOT CREEK REFERENCE (1-NC, 238)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

7/11/2006

REACH 1		T02S-R07W-S21SW					REACH 1					
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	2	18	0.8	0.10	14	0	0	0	5	0	0	95
CASCADE/BOULDERS	1	7	1.0	0.01	7	0	0	10	30	50	10	0
POOL-ISOLATED	1	2	1.0	0.20	2	0	5	5	90	0	0	0
POOL-LATERAL SCOUR	10	113	4.6	0.61	523	14	7	13	42	20	7	12
POOL-PLUNGE	8	42	4.6	0.71	227	6	11	19	36	18	6	10
PUDDLED UNIT	1	44	0.8	0.01	33	0	0	20	40	40	0	0
RAPID/BOULDERS	14	258	3.6	0.13	967	162	0	5	32	48	12	2
RIFFLE	5	87	3.7	0.11	283	0	3	14	34	44	1	4
STEP/BEDROCK	2	7	6.0	0.08	42	1	0	0	5	3	3	90
STEP/COBBLE	1	1	2.0	0.01	1	0	30	30	30	10	0	0
STEP/LOG	5	13	5.2	0.06	82	1	5	18	42	30	2	3
<b>Total:</b>	50	590	3.9	0.30	2,180	184	<b>Avg:</b> 5	12	35	30	6	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	1	2	1.0	0.20	2	0.09%	0	0.0	
Scour Pools	18	155	4.6	0.65	750	34.42%	20	2.7	
Glides	0	0			0	0.00%	0	0.0	
Riffles	5	87	3.7	0.11	283	12.96%	0	0.0	
Rapids	14	258	3.6	0.13	967	44.34%	162	16.8	
Cascades	3	25	0.8	0.07	21	0.96%	0	0.0	
Step/Falls	8	20	5.0	0.06	125	5.71%	2	1.6	
Dry	1	44	0.8	0.01	33	1.51%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	19	32.2	40.8
Pools >=1m deep:	2	3.4	4.3
Complex pools (LWD pieces>=3):	10	16.9	21.5
Pool frequency (channel widths/pool):	3.4		
Residual pool depth (avg):	0.57		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

STEAMPOT CREEK REFERENCE  
GCG: 1-NC SITE ID: 238

Survey Date 7/11/2006  
Report Date: 3/5/2007

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	284
Total conifers/1000 ft	406
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 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	0.0	0.3	0.0	0.3	0.0	0.7	0.0	1.3
15-30cm	0.3	0.3	0.7	0.0	0.3	0.0	1.3	0.3
30-50cm	0.0	2.7	2.0	0.0	2.3	0.0	4.3	2.7
50-90cm	0.7	0.3	0.3	0.0	0.0	0.0	1.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	3.7	3.0	0.3	2.7	0.7	2.2	1.6

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	68		73		87	
Shrub cover	18		32		40	
Grass/forb cover	50		48		56	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	67		83		100	
High terrace	0		0		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	33		17		0	
Riprap	0		0		0	
Surface slope (%)	48		63		72	

**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	284
Total conifers/1000 ft	406
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	0.0	1.3
15-30cm	1.3	0.3
30-50cm	4.3	2.7
50-90cm	1.0	0.3
>90cm	0.0	0.0

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# Comment Summary

## Restoration Monitoring Sites 2006

**MONITORING AREA: 1-NC      SITE ID: 238      STEAMPOT CREEK REFERENCE**

<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	LP	00	7		START @ END OF 1-NC-237	
4	LP	00	63			TROUT
5	SR	00	67		H=0.80M	
6	LP	00	78			DISCARDED CULVERT ON
9	SL	00	107.5		H=0.50M	
10	PP	00	116		RIPARIAN #1	
11	SR	00	119		H=0.25M	
14	CR	00	143	PN		
16	LP	01	167	/TJ		
20	RB	00	214.5		RIPARIAN #2	
21	LP	01	225			TROUT
23	RB	01	264	/ES		
25	SL	01	273	PN, DJ	H=1.50M	
28	SL	02	284		H=0.70M	
29	RB	02	284	RF		ATV TRAIL
31	SC	02	284		H=0.20M	
34	SL	02	284		H=0.70M	
38	RB	00	304.5	DJ		
40	SL	00	318.5		H=0.70M	
41	RB	01	328.5		RIPARIAN #3, AFFECTED BY	
42	LP	01	345.5		PHOTO #12 & 13	BEDROCK=HARDPAN

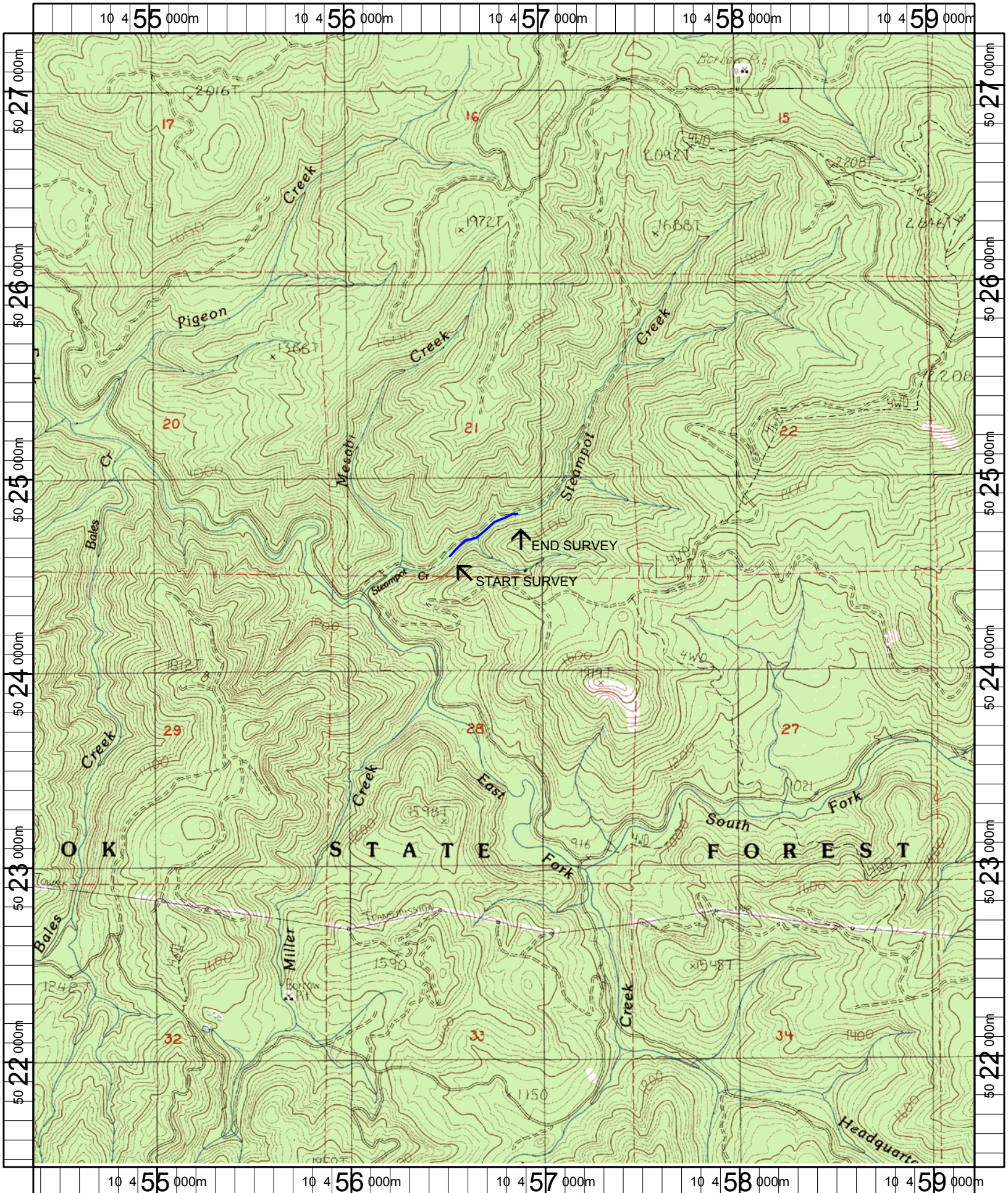
# Comment Summary

## Restoration Monitoring Sites 2006

MONITORING AREA: 1-NC      SITE ID: 238      STEAMPOT CREEK REFERENCE

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
43	RB	01	376.5	TJ/		
47	LP	00	415			8" TROUT
50	RB	00	466			6" TROUT





Name: DOVRE PEAK  
 Date: 6/9/2005  
 Scale: 1 inch equals 2000 feet

Location: 10 456805 E 5024365 N  
 Caption: STEAMPOT CREEK REFERENCE RESTORATION SITE - TRASK BASIN