

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

STREAM: Little Paradise Creek (UMP-353)  
BASIN: Umpqua River  
SURVEY TYPE: Post-Tx  
DATE: March 7, 2007  
SURVEY CREW: Ryan Jacobsen, Jason Hatfield  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 10.1 km<sup>2</sup>  
USGS MAPS: Elkton  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Little Paradise Creek habitat survey extended 2,110 meters. The channel was constrained by hillslopes in a moderate V-shape valley. The average valley width index was 2.4 (range: 1-5). Land use for the reach was second growth timber (15-30 cm dbh) and large timber (30-50 cm dbh). The average unit gradient was 2.0 percent. Riffles (44%), scour pools (25%) and rapids (22%) dominated stream habitat. Gravel (35%) and bedrock (23%) dominated stream substrate. Wood volume was high at 34.4 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several habitat structures during the survey. 2 debris jams were recorded.

Salmonid fry and a Rough-skinned newt were observed during the survey.

REACH 1

T22S-R08W-S12NW

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	2.4	VWI Range:	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	2,110	10,019	0
Secondary Channel	58	71	0
Off-Channel Units	118	358	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 10	<u>First Terrace</u> n = 4
Width: 4.7	Width: 6.9	10.7 ( 7.5 - 16.9 )	16.9 ( 13 - 26.9 )
Depth: 0.45	Height: 0.7	1.4 ( 1.2 - 1.6 )	2.4 ( 2 - 3 )

W:D ratio: 9.8  
 Stream Flow Type: MF  
 Average Unit Gradient: 2.0%  
 Water temperature (°C): 9.5 - 9.5

Entrenchment (ACW:FPW ratio): 1.5  
 Habitat Units/100m (total channel length): 5.4  
 Habitat Units/100m (primary channel length): 5.8

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	C30	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):	304	14.4
Volume (m <sup>3</sup> ):	726	34.4
Key pieces (>=12m x 0.60m):	50	2.4

OREGON DEPT OF FISH AND WILDLIFE

LITTLE PARADISE CREEK POST-TX (4-UJP, 353)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

3/7/2007

REACH 1		T22S-R08W-S12NW					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	3	44	2.5	0.13	184	0	3	7	3	0	0	87
CASCADE/BOULDERS	7	93	1.0	0.13	203	0	7	18	44	19	0	13
POOL-BACKWATER	7	30	8.3	0.45	253	0	56	16	14	4	0	11
POOL-DAMMED	1	20	5.3	0.70	107	0	30	30	0	0	0	40
POOL-ISOLATED	1	6	1.2	0.25	8	0	90	5	0	5	0	0
POOL-LATERAL SCOUR	43	497	5.4	0.74	2,612	0	6	17	30	16	2	30
RAPID/BEDROCK	7	281	4.5	0.32	1,373	0	2	8	16	7	2	65
RAPID/BOULDERS	7	227	4.1	0.39	942	0	1	12	37	23	5	22
RIFFLE	44	1,069	4.4	0.29	4,665	0	2	12	48	26	2	10
STEP/COBBLE	3	18	5.8	0.25	102	0	0	10	57	29	2	3
<b>Total:</b>	123	2,285	4.7	0.45	10,448	0	<b>Avg:</b> 8	14	35	18	2	23

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	9	57	7.2	0.46	368	3.52%	0	0.0	
Scour Pools	43	497	5.4	0.74	2,612	25.00%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	44	1,069	4.4	0.29	4,665	44.65%	0	0.0	
Rapids	14	508	4.3	0.36	2,314	22.15%	0	0.0	
Cascades	10	137	1.5	0.13	386	3.70%	0	0.0	
Step/Falls	3	18	5.8	0.25	102	0.98%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	52	22.8	24.6
Pools >=1m deep:	3	1.3	1.4
Complex pools (LWD pieces>=3):	14	6.1	6.6
Pool frequency (channel widths/pool):	6.3		
Residual pool depth (avg):	0.44		

# Comment Summary

## Restoration Monitoring Sites 2007

MONITORING AREA: **4-UMP**    SITE ID: **353**    **LITTLE PARADISE CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
1	RR	01	48	TJ/	TEMP=10.0
2	CB	11	48		ACW=3.5, TEMP=9.5
6	LP	01	76.4		APPROX 120 SALMONID
7	IP	10	76.4		FRY
29	LP	01	512.5	TJ/	
30	RI	11	512.5		ACW=5.5, TEMP=9.5, FRY
36	LP	00	586.7	HS	FRY
38	LP	00	605.9	HS	
42	LP	01	706.5	TJ/	
43	RR	00	716.5		ACW=2.4, TEMP=10.0
44	RR	00	746.4	HS	
45	DP	00	766.6	HS	
47	RR	00	862.6	HS	
50	RI	00	980.9	HS	
58	RI	01	1103.6	TJ/	
59	CB	00	1113.6		TEMP=10.0, ACW=0.5
61	RI	01	1163.1	TJ/	
62	CB	11	1163.1		ACW=1.4, TEMP=8.5
65	LP	01	1254.3	TJ/	
66	CR	00	1258.3		ACW=1.4, TEMP=8.0
72	RI	02	1332.5	WL	ROUGH NEWTS

# Comment Summary

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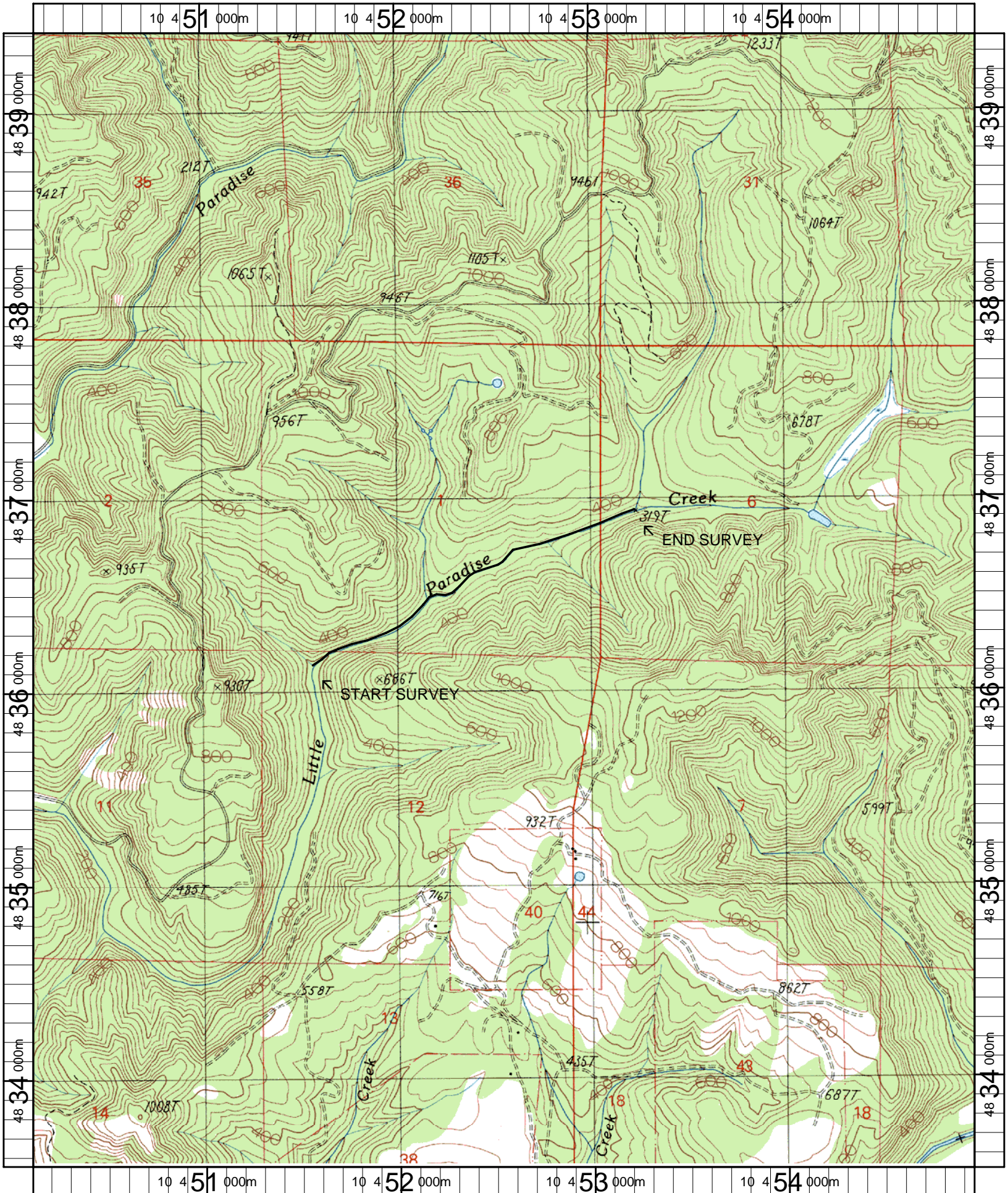
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
73	LP	00	1338.5	HS	
74	SC	00	1342.3	HS	
76	RI	00	1366.3	HS	
80	LP	00	1446	DJ	
83	RI	01	1478.6	TJ/	
84	CB	11	1478.6		ACW=0.9, TEMP=9.0
85	LP	00	1493.4	HS	
87	LP	01	1525.8	/TJ, WL	FRY
88	CR	11	1525.8	HS	ACW=2.3, TEMP=8.5
93	CB	00	1572.4		ACW=1.1, TEMP=8.5
95	BW	10	1620.4	WL	FRY
96	RI	00	1650.6	WL	FRY
101	LP	00	1754.9	HS	
102	RI	00	1778.6	HS	
103	LP	00	1782.2	HS	
104	RI	01	1810.8	TJ/	
105	CB	00	1818.8		ACW=1.3, TEMP=1.3
106	LP	00	1834.1	WL	FRY
115	LP	00	1972.1	HS	
116	RB	00	1990.1	HS	
122	RI	01	2109.6	DJ	LARGE BLOW DOWNS, TEMP=9.5

# Comment Summary

## Restoration Monitoring Sites 2007

MONITORING AREA: 4-UMP    SITE ID: 353    LITTLE PARADISE CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
123	RB	11	2109.6		ACW=4.9, TEMP=9.5



Name: ELKTON (OR)  
 Date: 4/25/2007  
 Scale: 1 inch equals 2000 feet

Location: 10 0452548 E 4836469 N  
 Caption: LITTLE PARADISE CREEK RESTORATION SITE - UMPQUA BASIN