

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 11, 2008
SURVEY CREW: Kyle Brachter, Bobby Gomez
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 10.1 km²
USGS MAPS: Elkton
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Little Paradise Creek habitat survey extended 2,058 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 4.3 (range: 1-8). Land use for the reach was second growth timber (15-30cm dbh) and large growth timber (30-50cm dbh). The average unit gradient was 2.2 percent. Scour pools (43%) and riffles (40%) dominated stream habitat. Gravel (40%) and bedrock (30%) dominated stream substrate. Wood volume was 30.1m³/100m.

COMMENTS:

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

The crew noted several habitat structures and debris jams during the survey.

Beaver activity, juvenile salmonids, two adult cutthroat trout, one redd, rough-skinned newts, a Pacific giant salamander, and a mallard were observed during the survey.

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

**LITTLE PARADISE CREEK
GCG: 4-UMP SITE ID: 353**

Survey Date: 3/11/2008

Report Date: 5/8/2008

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.3	VWI Range:	1 - 8

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	2,058	9,258	0
Secondary	60	63	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 8	<u>First Terrace</u> n = 5
Width: 4.3	Width: 6.4	9.3 (5.9 - 17.9)	14.8 (12 - 19.9)
Depth: 0.36	Height: 0.5	1.0 (0.9 - 1.3)	2.1 (1.3 - 3)

W:D ratio: 12.5

Stream Flow Type: MF

Average Unit Gradient: 2.2%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 7.0

Habitat Units/100m (primary channel length): 7.2

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
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):	335	16.3
Volume (m ³):	619	30.1
Key pieces (>=12m x 0.60m):	27	1.3

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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/BOULDERS	1	5	0.4	0.02	2	0	20	0	80	0	0	0
DRY CHANNEL	1	20	1.4	0.00	28	0	0	100	0	0	0	0
POOL-LATERAL SCOUR	68	871	4.5	0.60	3,935	0	0	27	37	6	0	31
POOL-PLUNGE	3	22	5.3	0.63	105	0	0	3	3	17	0	77
POOL-STRAIGHT SCOUR	1	11	4.8	0.50	52	0	0	20	0	0	0	80
RAPID/BEDROCK	12	263	4.2	0.13	1,160	0	0	2	3	2	2	91
RAPID/BOULDERS	3	30	2.2	0.10	109	0	0	23	20	40	17	0
RIFFLE	41	671	4.2	0.15	2,923	0	0	10	63	19	2	6
RIFFLE W/ POCKETS	5	187	4.3	0.19	832	0	0	16	52	23	4	5
STEP/BEDROCK	6	19	4.0	0.05	73	0	0	0	2	2	0	97
STEP/BOULDERS	1	2	6.5	0.15	10	0	0	0	20	0	80	0
STEP/COBBLE	5	18	5.0	0.08	90	0	0	5	76	19	0	0
STEP/LOG	1	1	3.5	0.02	2	0	0	0	0	11	0	89
Total:	148	2,118	4.3	0.36	9,321	0	Avg: 0	17	40	11	2	30

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	0	0			0	0.00%	0	0.0
Scour Pools	72	904	4.5	0.60	4,092	43.90%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	46	858	4.2	0.16	3,755	40.29%	0	0.0
Rapids	15	293	3.8	0.12	1,270	13.62%	0	0.0
Cascades	1	5	0.4	0.02	2	0.02%	0	0.0
Step/Falls	13	39	4.5	0.06	174	1.87%	0	0.0
Dry	1	20	1.4	0.00	28	0.30%	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:	72	34.0	35.0
Pools >=1m deep:	3	1.4	1.5
Complex pools (LWD pieces>=3):	24	11.3	11.7
Pool frequency (channel widths/pool):	4.6		
Residual pool depth (avg):	0.44		

COMMENT SUMMARY

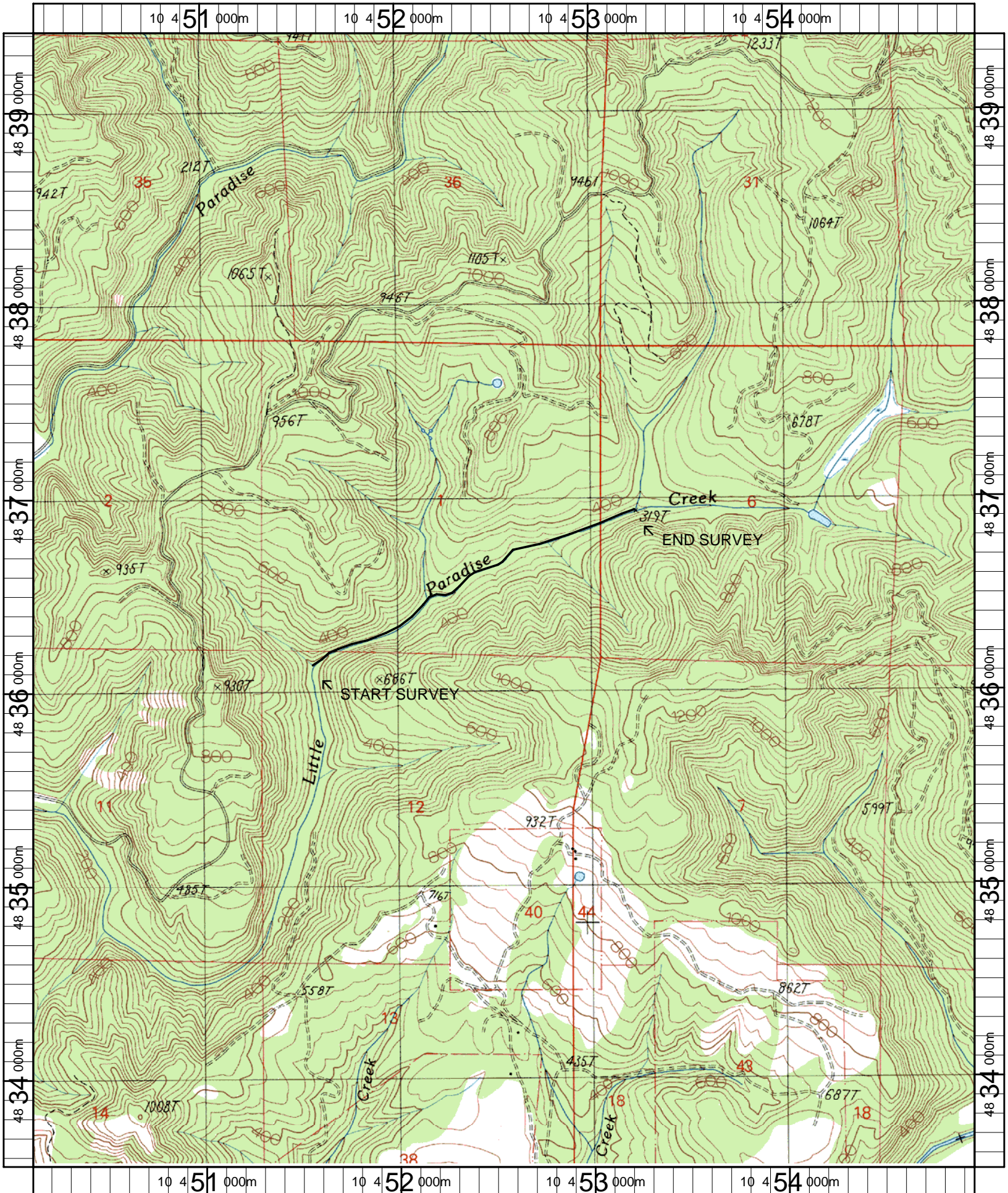
MONITORING AREA: 4-UMP SITE ID: 353 STREAM: LITTLE PARADISE CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RR	01	10	TJ/	CACT D15S STLT
2	RB	11	10		ACW=1.5M T=7C
9	RR	00	92.3	BV	STICKS
14	LP	00	197.3	DJ	
15	RP	00	251.5	DJ SS/	POCKET: 3M X 1.4M X 0.4M
23	SC	00	335.2		CHSV D15G STLT
24	LP	00	342.5	DJ	
30	LP	00	429.1		HARDPAN
38	LP	01	525.2	TJ/	
39	RB	11	525.2		ACW=1.3M T=8C
41	LP	00	546.3		ROUGH-SKINNED NEWT, MALLARD DUCK
42	RI	00	567.3		CACT D15S STLT
45	LP	00	595	HS DJ	
51	LP	00	653.1		JUVENILE SALMONID
54	RP	01	705.4	/SS AM	PACIFIC GIANT SALAMANDER
55	LP	01	728.2	TJ/	2 ADULT CUTTHROAT
56	RR	11	728.2		ACW=2M T=8C
57	SR	00	730.2	HS DJ	
64	LP	00	813.8	V	
67	RR	00	877.7	HS DJ	
68	LP	00	884.9	/SS	
71	RR	00	980.3	DJ	

COMMENT SUMMARY

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
74	LP	00	993.3	HS DJ	
81	LP	00	1116.9		REDD IN POOL
84	RP	00	1204.7		CHMV C30C50 LTST
87	LP	01	1247.3	/TJ	
88	SR	11	1247.3		T=7C ACW=0.9M
99	LP	00	1332	DJ HS	
104	RR	00	1412.9	SS/	
110	RI	00	1469.4	SS/	
111	LP	00	1484.6	DJ HS	
112	RI	00	1493.7	HS DJ	
114	RR	01	1528.5	/TJ	
115	SR	11	1528.5		T=7.5C ACW=1.9M
120	RI	00	1624.4		CACT C30G LTST
127	LP	00	1693.4	HS DJ	
128	RP	00	1710.7		POCKET 3M X 1.6M X 0.3M
130	RP	01	1777.9	HS DJ TJ/	POCKETS:
131	CB	11	1777.9		T=8C ACW=0.7M
137	RI	00	1860.6		CACT C30S LTST
139	RI	00	1915.1	/SS HS DJ	
140	LP	00	1944.1	HS DJ	A LOT OF WOOD RECRUITED IN THIS HS (SEE PHOTO)
148	SC	00	2048.7		CHMV C30G LTST
149	LP	00	2058.2	DJ	



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