

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

STREAM: Paradise Creek Site 1 (UMP-351)
BASIN: Umpqua River
SURVEY TYPE: Post-Tx
DATE: February 22, 2007
SURVEY CREW: Jason Hatfield, Ryan Jacobsen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 31.7 km²
USGS MAPS: Elkton
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Paradise Creek Site 1 habitat survey extended 1,617 meters. The channel was constrained by land use and multiple terraces in a broad valley floor. The average valley width index was 9.1 (range: 3.5-15). Land use for the reach was agriculture and second growth timber (15-30 cm dbh). The average unit gradient was 1.2 percent. Scour pools (41%) and riffles (30%) dominated stream habitat. Bedrock (33%) and gravel (24%) dominated stream substrate. Wood volume was low at 17.1 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey. Logs from several habitat structures were blown to the sides of the channel. 2 debris jams were recorded.

REACH 1

T22S-R08W-S10NE

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	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	9.1	VWI Range:	3.5 - 15

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	0%		
Landuse	100%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	1,617	16,253	0
Secondary Channel	16	43	0
Off-Channel Units	39	71	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 7
Width: 8.7	Width: 10.5	13.7 (9.1 - 21.9)	25.0 (19.2 - 38.4)
Depth: 0.79	Height: 1.0	2.0 (1.4 - 3)	2.4 (1.5 - 3)

W:D ratio: 11.3
 Stream Flow Type: HF
 Average Unit Gradient: 1.2%
 Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 2.5
 Habitat Units/100m (primary channel length): 2.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	AG	ST
Riparian Vegetation:	S	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):	228	14.1
Volume (m ³):	276	17.1
Key pieces (>=12m x 0.60m):	1	0.1

OREGON DEPT OF FISH AND WILDLIFE

PARADISE CREEK SITE 1 POST-TX (4-UJP, 351)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

2/22/2007

REACH 1		T22S-R08W-S10NE					REACH 1					
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/BEDROCK	1	35	10.0	0.50	347	0	0	0	5	5	90	0
CASCADE/BOULDERS	3	30	0.6	0.13	18	0	12	32	42	15	0	0
POOL-DAMMED	1	157	12.8	2.00	2,011	0	10	40	25	15	0	10
POOL-LATERAL SCOUR	9	587	11.0	1.56	6,462	0	3	24	31	18	3	22
POOL-PLUNGE	1	24	8.2	1.00	199	0	0	30	20	20	10	20
RAPID/BEDROCK	1	47	8.2	0.50	388	0	0	5	5	0	0	90
RAPID/BOULDERS	7	194	7.3	0.61	1,512	0	0	9	22	19	16	33
RIFFLE	14	532	8.9	0.58	4,866	0	6	9	20	5	3	56
STEP/BOULDERS	2	8	8.9	0.45	56	0	0	0	15	10	75	0
STEP/LOG	2	57	11.1	0.40	510	0	8	38	33	15	0	8
Total:	41	1,671	8.7	0.79	16,367	0	Avg: 4	16	24	12	11	33

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	1	157	12.8	2.00	2,011	12.29%	0	0.0	
Scour Pools	10	612	10.7	1.50	6,661	40.70%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	532	8.9	0.58	4,866	29.73%	0	0.0	
Rapids	8	241	7.4	0.60	1,900	11.61%	0	0.0	
Cascades	4	65	2.9	0.23	365	2.23%	0	0.0	
Step/Falls	4	65	10.0	0.43	565	3.45%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

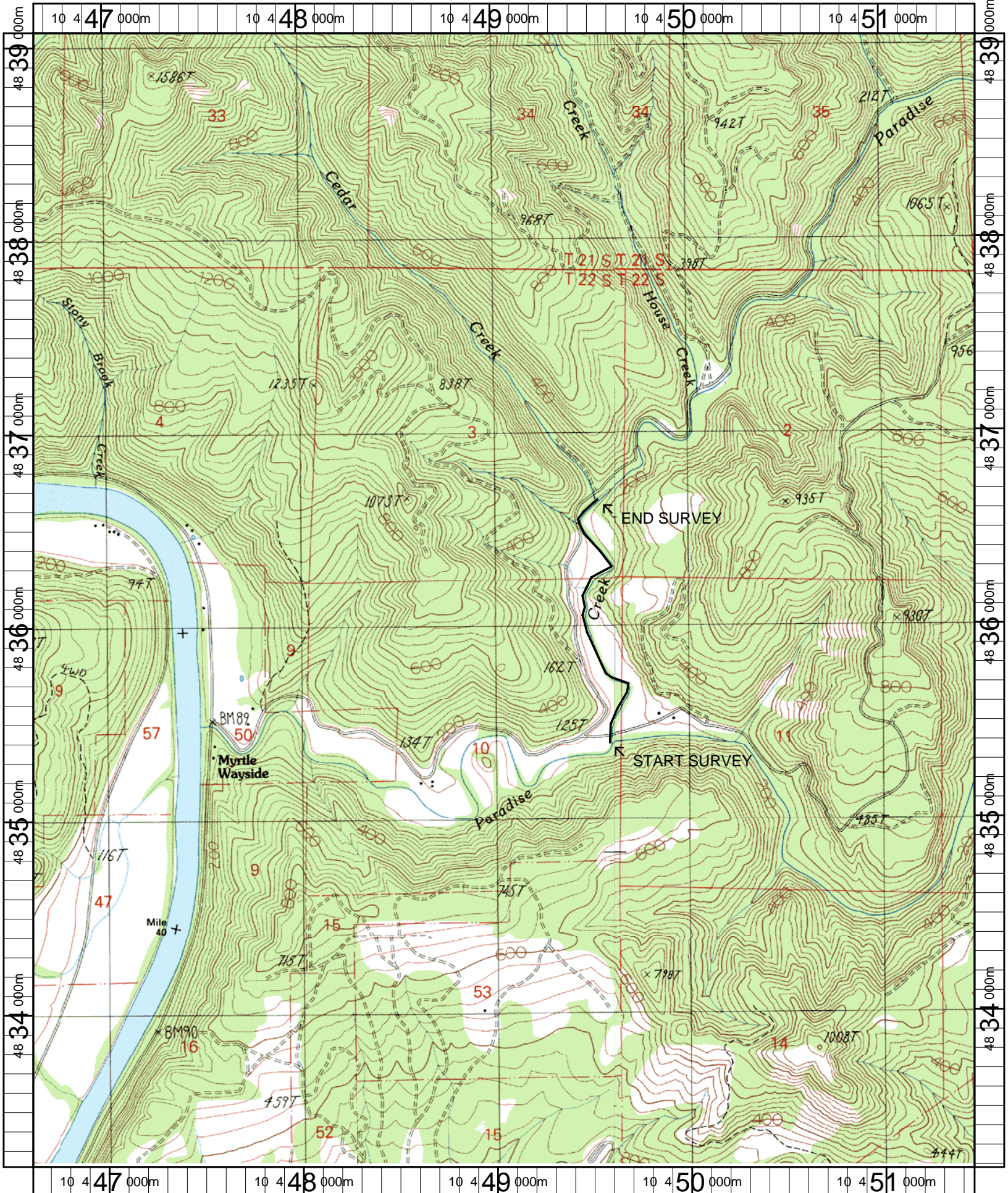
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	11	6.6	6.8
Pools >=1m deep:	11	6.6	6.8
Complex pools (LWD pieces>=3):	6	3.6	3.7
Pool frequency (channel widths/pool):	14.4		
Residual pool depth (avg):	0.96		

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: **4-UMP** SITE ID: **351** **PARADISE CREEK SITE 1 POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
1	RI	00	48.4	HS	TEMP=7.0C, HS BLOWN TO SIDE
4	RB	00	212.2	HS	HS BLOWN TO SIDE OF STREAM
7	SB	00	277.3	HS	ROCK WEIR
8	LP	00	381.4	HS	HS LOGS BLOWN TO SIDE
13	RB	00	528.6	HS	HS LOGS BLOWN TO SIDE OF CHANN
14	LP	00	621.8	HS	HS BLOWN OUT
16	LP	01	759.5	TJ/TJ	
17	CB	11	759.5		ACW=0.7, TEMP=9.0
18	CB	00	769.5		ACW=0.8, TEMP=8.0
23	LP	00	909.9	HS	LOGS AND BOULDERS
25	LP	01	985.7	HS	
27	PP	00	1016	HS	
30	LP	00	1157.8	HS	
31	RI	01	1175.1	HS, /TJ	
32	RI	00	1190.1		ACW=1.5, TEMP=9.0C
34	SL	00	1244.1	DJ, HS	MAJOR DEBRIS JAM BACKING UP
37	LP	01	1434	TJ/	
38	CB	11	1434		ACW=1.3, TEMP=8.0
43	RB	11	1616.6		ACW=6.5, TEMP=8.0



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

Location: 10 0449052 E 4836130 N
Caption: PARADISE CREEK SITE 1 RESTORATION SITE - UMPQUA BASIN