

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 21, 2008
SURVEY CREW: Kyle Brachter, Bobby Gomez
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 31.7 km²
USGS MAPS: Elkton
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Paradise Creek Site 1 habitat survey extended 1,623 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 14.1 (range: 8-20). Land use for the reach was light grazing and agriculture. The average unit gradient was 1.2 percent. Scour pools (66%), rapids (15%) and riffles (14%) dominated stream habitat. Bedrock (42%) and gravel (28%) dominated stream substrate. Wood volume was 14.7m³/100m.

COMMENTS:

One potential natural barrier to upstream fish migration, a bedrock step, was noted in the surveyed length.

The crew noted several habitat structures consisting of boulder weirs and cabled logs during the survey.

Beaver activity, juvenile salmonids, and an adult steelhead were observed during the survey.

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

**PARADISE CREEK SITE 1
GCG: 4-UMP SITE ID: 351**

Survey Date: 2/21/2008

Report Date: 5/8/2008

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	14.1	VWI Range:	8 - 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	1,623	14,263	0
Secondary	105	281	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 7
Width: 8.1	Width: 10.4	12.6 (8 - 19)	18.4 (10.5 - 25)
Depth: 0.53	Height: 0.6	1.2 (0.8 - 1.6)	2.5 (1.15 - 3.5)

W:D ratio: 18.1

Stream Flow Type: MF

Average Unit Gradient: 1.2%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 4.1

Habitat Units/100m (primary channel length): 4.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LG	AG
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):	240	14.8
Volume (m ³):	239	14.7
Key pieces (>=12m x 0.60m):	1	0.1

OREGON DEPT OF FISH AND WILDLIFE

PARADISE CREEK SITE 1

HABITAT INVENTORY

GCG: 4-UMP SITE ID: 351

Survey Date: 2/21/2008

Report Date: 5/8/2008

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	28	11.0	0.10	308	0	0	0	0	0	0	100
CASCADE/BOULDERS	3	19	0.7	0.03	13	0	0	5	88	7	0	0
POOL-BACKWATER	2	11	3.1	0.60	35	0	0	98	3	0	0	0
POOL-ISOLATED	1	5	3.0	0.50	15	0	0	70	30	0	0	0
POOL-LATERAL SCOUR	27	1,030	8.9	0.92	9,203	0	0	25	30	5	1	38
POOL-STRAIGHT SCOUR	2	58	7.0	0.80	403	0	0	8	0	0	0	93
RAPID/BEDROCK	12	271	8.4	0.30	2,278	0	0	1	1	1	5	92
RAPID/BOULDERS	1	3	0.4	0.02	1	0	0	90	10	0	0	0
RIFFLE	11	257	7.4	0.30	1,762	0	0	25	49	4	1	21
RIFFLE W/ POCKETS	1	21	13.0	0.30	273	0	0	0	48	10	5	38
STEP/BEDROCK	3	12	8.7	0.15	107	0	0	0	0	0	0	100
STEP/COBBLE	1	2	10.2	0.20	15	0	0	0	80	20	0	0
STEP/LOG	1	2	11.3	0.10	23	0	0	0	50	50	0	0
STEP/STRUCTURE	4	10	11.0	0.29	108	0	0	3	27	0	70	0
Total:	70	1,728	8.1	0.53	14,544	0	Avg: 0	19	28	4	6	42

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	3	16	3.1	0.57	50	0.34%	0	0.0
Scour Pools	29	1,087	8.8	0.91	9,606	66.05%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	12	278	7.9	0.30	2,035	14.00%	0	0.0
Rapids	13	274	7.8	0.28	2,279	15.67%	0	0.0
Cascades	4	47	3.3	0.05	321	2.21%	0	0.0
Step/Falls	9	25	10.2	0.21	253	1.74%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

PARADISE CREEK SITE 1
GCG: 4-UMP SITE ID: 351

Survey Date: 2/21/2008

Report Date: 5/8/2008

T22S-R08W-S10NE

REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	32	18.5	19.7
Pools >=1m deep:	12	6.9	7.4
Complex pools (LWD pieces>=3):	17	9.8	10.5
Pool frequency (channel widths/pool):	5.2		
Residual pool depth (avg):	0.61		

COMMENT SUMMARY

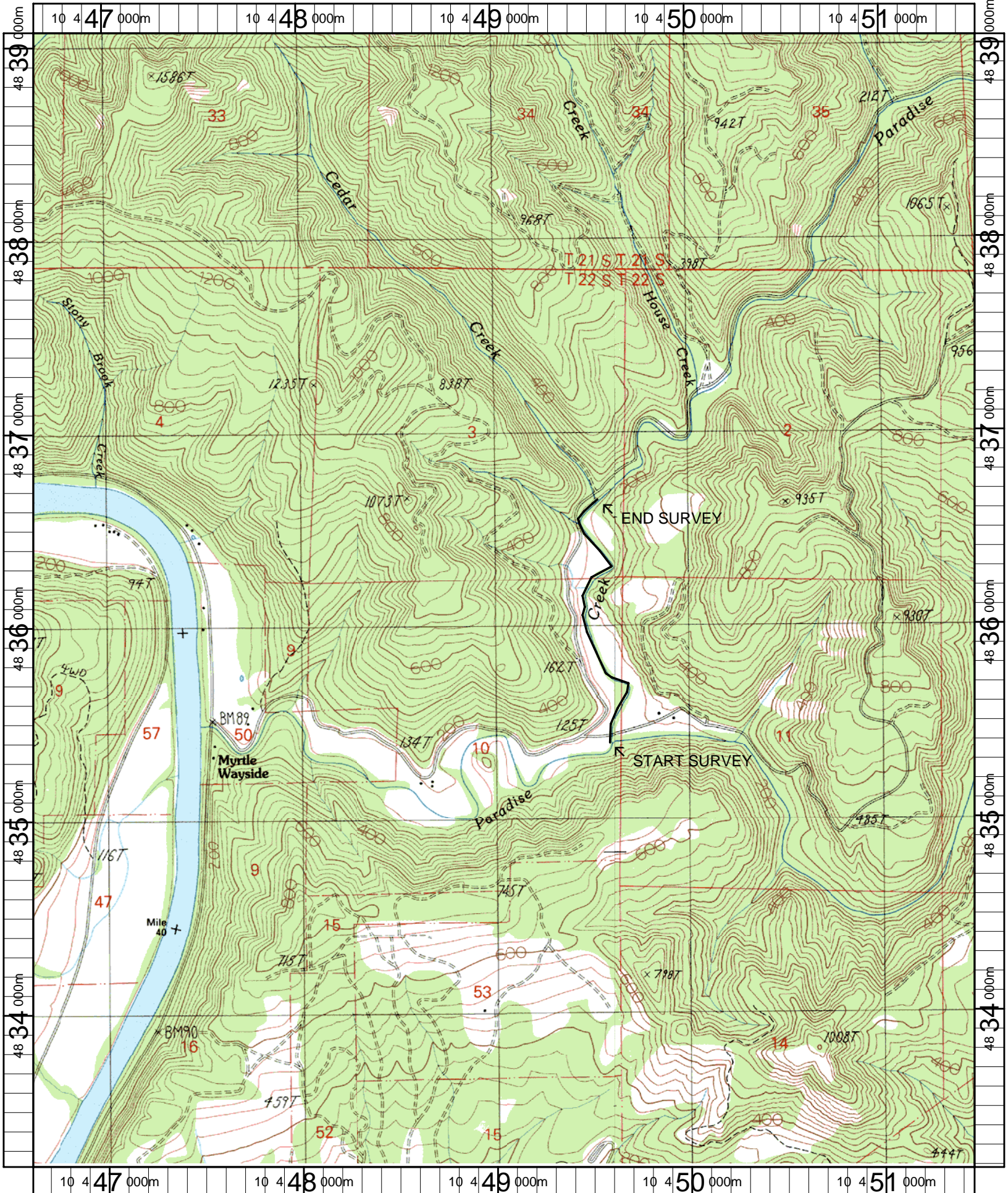
MONITORING AREA: 4-UMP SITE ID: 351 STREAM: PARADISE CREEK SITE 1

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RR	00	53.9	BC CS/CS	CTCT D15S LGRR
8	RR	00	225.4	HS DJ	JUVENILE SALMONIDS
9	LP	00	245.5	HS	GABION
10	RR	00	263.7	HS	CTMT D3S LGST
12	SS	00	314.3	HS	ROCK WEIR
13	LP	00	441.3		JUVENILE SALMONIDS
14	RR	00	454.1	HS BV	UNCABLED BOULDERS
15	SS	00	456.6	HS	BOULDERS WEIR
17	RR	00	581.8	HS	BOULDERS UNCABLED
18	SS	00	584.8	HS	ROCK WEIR
19	LP	00	698.8	HS WL	2 LOGS SUBMERGED AND BOULDERS
20	SS	00	700.8	BV HS	CUT TREES
21	LP	01	813.3	HS SS/ /TJ	CABLED WOOD RIGHT BANK
22	CB	11	813.3		ACW=1.2
26	RR	00	845.9		CTCT D15S LGST
27	LP	00	876.9	HS	CABLED WOOD
28	SR	00	881.9	PN	
30	RI	01	963.3	TJ/	
31	CB	11	963.3		T=7.5C
32	LP	00	984.5	HS	CABLED BOULDERS AND LOGS
34	LP	00	1002.7	SS/	
35	RI	00	1027.3	SS/	

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 351 STREAM: PARADISE CREEK SITE 1

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
37	RI	01	1090.2	HS DJ	CABLED WOOD/ BOULDERS
42	LP	01	1155.8	/SS	
44	RI	02	1155.8		CACT D15/S LG/ST
47	RI	00	1184	HS DJ	CABLED WOOD
48	LP	01	1197.7	/TJ	
49	RB	11	1197.7		ACW=0.5M
50	LP	00	1239.7	HS	CABLED WOOD ALONGSIDE BANK
52	LP	00	1278.2	HS DJ	CABLED WOOD
55	RI	00	1322.7		CACT D15S LGST
56	LP	00	1356.5	HS	CABLED LOG
57	RI	00	1372.9	HS	CABLED LOG
58	LP	00	1389.3	HS	ADULT STEELHEAD IN POOL
59	RI	00	1407.5	HS	
60	LP	01	1430.3	HS TJ/	CABLED WOOD AND ROOTWADS
61	CB	11	1430.3		T=7C
70	RR	00	1623		CACT D15S STYT



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