

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

STREAM: Karl Creek (MS-356)
BASIN: East Fork Coquille River
SURVEY TYPE: Post-Tx
DATE: February 28, 2008
SURVEY CREW: Kyle Brachter, Bobby Gomez
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 8.6 km²
USGS MAPS: Dora, Sitkum
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Karl Creek habitat survey extended 801 meters. The channel was constrained by hillslopes in a steep V-shaped valley. The average valley width index was 2.3 (range: 1-4.5). Land use for the reach was second growth timber (15-30cm dbh) and large growth timber (30-50cm dbh). The average unit gradient was 3.4 percent. Scour pools (36%), riffles (34%) and rapids (19%) dominated stream habitat. Gravel (41%), cobble (18%) and sand (17%) dominated stream substrate. Wood volume was 43.9m³/100m.

COMMENTS:

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

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

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

**KARL CREEK
GCG: 3-MS SITE ID: 356**

Survey Date: 2/28/2008

Report Date: 5/8/2008

T27S-R10W-S22SW

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	2.3	VWI Range:	1 - 4.5

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	801	4,520	0
Secondary	34	77	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 5.0	Width: 9.3	11.7 (8.2 - 13.8)	16.0 (13.8 - 18.2)
Depth: 0.53	Height: 0.6	1.1 (0.9 - 1.2)	2.5 (2.2 - 2.7)

W:D ratio: 17.1

Stream Flow Type: MF

Average Unit Gradient: 3.4%

Water temperature (°C): 6.0 - 6.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 5.3

Habitat Units/100m (primary channel length): 5.5

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):	147	18.4
Volume (m ³):	352	43.9
Key pieces (>=12m x 0.60m):	7	0.9

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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/BEDROCK	2	67	3.9	0.33	272	0	0	2	7	0	10	81
POOL-BACKWATER	2	10	3.4	0.50	32	0	0	0	75	8	8	8
POOL-LATERAL SCOUR	14	257	5.2	0.80	1,354	0	0	25	45	14	13	4
POOL-PLUNGE	3	43	5.1	1.30	217	0	0	31	43	7	13	7
POOL-TRENCH	1	32	4.0	3.00	128	0	0	22	33	0	22	22
RAPID/BOULDERS	5	114	6.0	0.18	905	0	0	8	36	20	36	0
RIFFLE	9	226	6.0	0.17	1,254	0	0	12	43	39	6	0
RIFFLE W/ POCKETS	1	54	6.2	0.15	334	0	0	5	38	48	10	0
STEP/BEDROCK	1	5	0.8	0.00	4	0	0	0	0	0	0	100
STEP/BOULDERS	2	11	2.3	0.18	26	0	0	25	28	0	47	0
STEP/COBBLE	1	4	6.1	0.05	24	0	0	0	100	0	0	0
STEP/LOG	3	12	4.4	0.17	46	0	0	30	24	22	3	20
Total:	44	834	5.0	0.53	4,598	0	Avg: 0	17	41	18	14	10

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	2	10	3.4	0.50	32	0.71%	0	0.0
Scour Pools	18	332	5.1	1.01	1,699	36.96%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	10	280	6.0	0.17	1,588	34.53%	0	0.0
Rapids	5	114	6.0	0.18	905	19.68%	0	0.0
Cascades	2	67	3.9	0.33	272	5.92%	0	0.0
Step/Falls	7	32	3.5	0.13	101	2.20%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

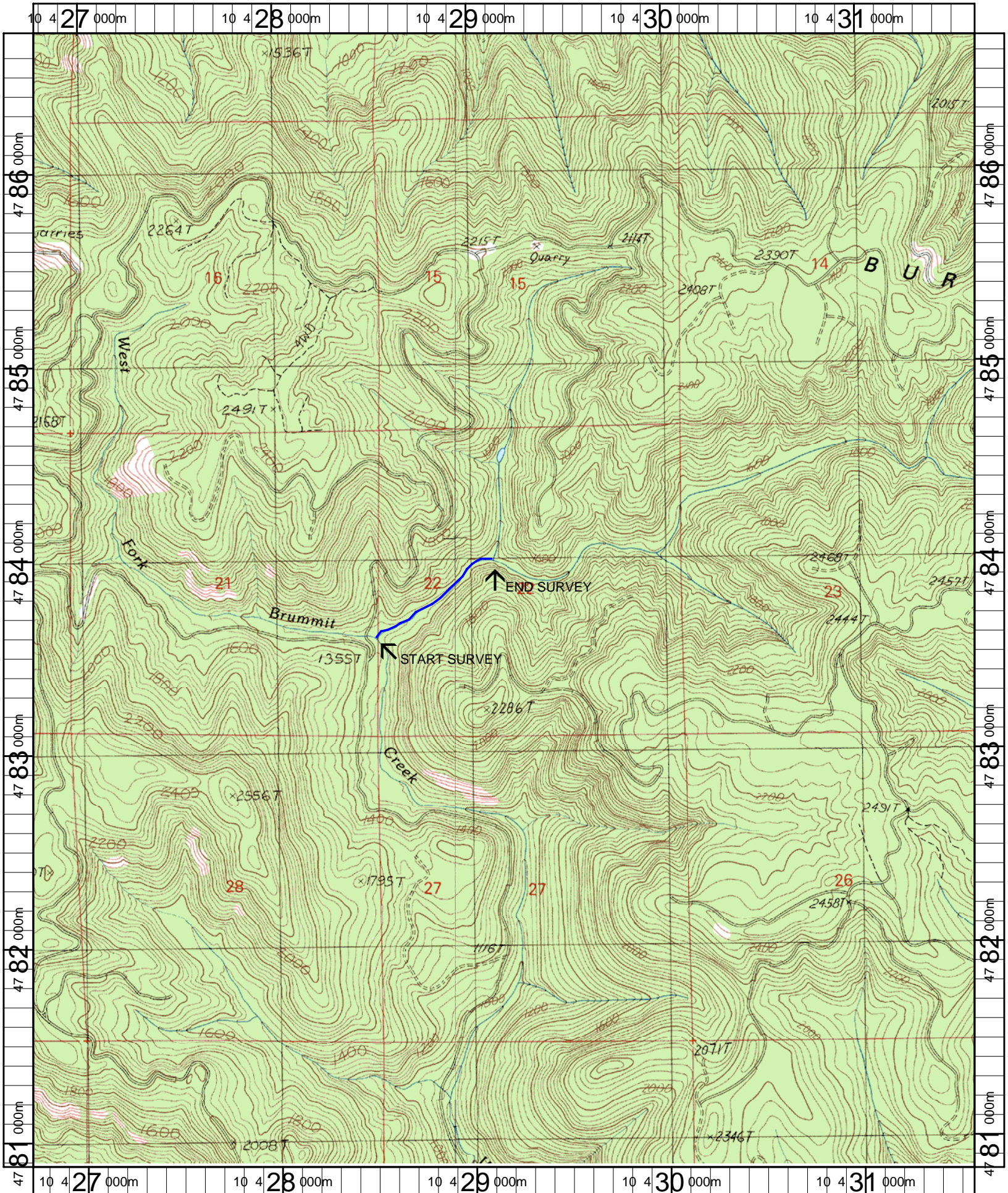
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	Total	# / Km	# / Km
All Pools:	20	24.0	25.0
Pools >=1m deep:	7	8.4	8.7
Complex pools (LWD pieces>=3):	7	8.4	8.7
Pool frequency (channel widths/pool):	4.5		
Residual pool depth (avg):	0.72		

COMMENT SUMMARY

MONITORING AREA: 3-MS SITE ID: 356 STREAM: KARL CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	RI	00	22.8		T=6C SEE METRIC SKETCHES FOR UTM'S.
5	RB	00	47.6	DJ	
7	SL	00	58.5	DJ PN	
9	LP	01	103.2	TJ/	
10	RB	11	103.2		ACW=1.5M T=6C
12	LP	00	148.6	HS DJ	ALDERS AND FIR
17	RI	00	270.6		CACT D15S STLT
20	LP	01	341.9	HS DJ /TJ	
21	SR	11	341.9		T=6C ACW=1.2M
27	RB	01	477.4	TJ/	CHSV D15S STLT
28	SB	11	477.4		T=7C ACW=1.4M
30	PP	00	533.1	/SS	
33	CR	00	632.4		POCKET: 2M X 1.5M X 0.6M
34	RI	00	677.1		CHSV D15S STLT
39	RP	00	767.5		POCKETS: 5M X 3M X 0.7M
41	LP	00	785.4	HS DJ	
43	LP	01	800.7	TJ/	CHSV D15S STLT
44	SL	11	800.7		T=6C ACW=4.5M, 8M SR ABOVE THIS UNIT



Name: DORA
 Date: 1/3/2007
 Scale: 1 inch equals 2000 feet

Location: 10 429167 E 4783779 N
 Caption: KARL CREEK RESTORATION SITE - COQUILLE BASIN