

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

STREAM: Karl Creek (MS-356)
BASIN: Coquille River
SURVEY TYPE: Pre-Tx
DATE: July 11, 2007
SURVEY CREW: Peter Cole, Lisa Biggs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 8.6 km²
USGS MAPS: Dora, Sitkum
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Karl Creek habitat survey extended 814 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.7 (range: 1.0-4.5). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 3.1 percent. Scour pools (36%) and rapids (29%) dominated stream habitat. There was no dominant stream substrate. Wood volume was high at 43.2 m³/100m.

COMMENTS:

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

REACH 1

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	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.7	VWI Range:	1 - 4.5

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 Channel	814	4,018	1
Secondary Channel	0	0	0
Off-Channel Units	32	112	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 4
Width: 4.6	Width: 11.1	14.8 (9.7 - 23.1)	17.7 (10.5 - 24)
Depth: 0.42	Height: 0.6	1.2 (1 - 1.3)	1.9 (1.3 - 2.3)

W:D ratio: 18.6
 Stream Flow Type: LF
 Average Unit Gradient: 3.1%
 Water temperature (°C): 13.0 - 13.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 5.7
 Habitat Units/100m (primary channel length): 5.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 94%
Undercut Banks:	7%	Range: 78 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	155	19.0
Volume (m ³):	352	43.2
Key pieces (>=12m x 0.60m):	6	0.7

OREGON DEPT OF FISH AND WILDLIFE

KARL CREEK PRE-TX (3-MS, 356)

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

7/11/2007

REACH 1		T27S-R10W-S22SW					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/BOULDERS	6	111	3.6	0.23	452	210	2	20	14	22	37	5
DRY UNIT	1	13	2.2	0.00	28	0	0	21	63	16	0	0
POOL-BACKWATER	4	19	4.2	0.59	84	23	8	23	40	13	16	0
POOL-LATERAL SCOUR	8	182	5.3	0.96	978	66	13	23	29	15	18	1
POOL-PLUNGE	1	25	5.5	1.20	139	25	5	20	25	15	20	15
POOL-STRAIGHT SCOUR	3	34	5.1	0.55	176	35	7	23	19	22	30	0
POOL-TRENCH	1	32	5.7	2.00	183	28	0	28	11	22	17	22
PUDDLED UNIT	1	18	1.2	0.10	22	1	0	10	80	5	5	0
RAPID/BOULDERS	11	226	5.3	0.21	1,196	312	1	20	15	38	27	0
RIFFLE	7	164	4.8	0.21	799	49	2	24	31	32	12	0
STEP/BOULDERS	3	8	3.0	0.04	27	14	0	0	3	7	90	0
STEP/COBBLE	2	14	3.5	0.06	47	0	0	10	85	5	0	0
Total:	48	846	4.6	0.42	4,130	763	Avg: 4	20	26	23	25	2

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	4	19	4.2	0.59	84	2.03%	23	27.4	
Scour Pools	13	273	5.3	0.96	1,475	35.72%	154	10.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	164	4.8	0.21	799	19.36%	49	6.1	
Rapids	11	226	5.3	0.21	1,196	28.97%	312	26.1	
Cascades	6	111	3.6	0.23	452	10.94%	210	46.5	
Step/Falls	5	22	3.2	0.05	74	1.79%	14	19.0	
Dry	2	31	1.7	0.05	50	1.20%	1	2.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	17	20.1	20.9
Pools >=1m deep:	6	7.1	7.4
Complex pools (LWD pieces>=3):	8	9.5	9.8
Pool frequency (channel widths/pool):	4.5		
Residual pool depth (avg):	0.87		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

KARL CREEK PRE-TX
GCG: 3-MS SITE ID: 356

Survey Date 7/11/2007
Report Date: 11/7/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 5 transects

Total hardwoods/1000	1780
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	12
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	1.4	4.6	0.4	6.0	0.4	11.0	2.2	21.6
15-30cm	0.2	2.8	0.4	2.0	0.4	0.4	1.0	5.2
30-50cm	0.0	1.2	0.2	0.8	0.4	0.2	0.6	2.2
50-90cm	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.2
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.6	8.6	1.2	9.0	1.2	11.6	1.3	9.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	86		83		80	
Shrub cover	30		27		40	
Grass/forb cover	70		71		60	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	60		80		90	
High terrace	30		20		10	
Low terrace	10		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	61		86		87	

Summary of Riparian Zone (0-30m) for all reaches

5 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	1780
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	12
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	2.2	21.6
15-30cm	1.0	5.2
30-50cm	0.6	2.2
50-90cm	0.2	0.2
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
12	LT	1	LT	0	100	25	75	Conifer							REALLY OLD ROAD BED. ELK TRAIL MOSS COVERED HUGE
								Hardwood	1	1	1				
12	LT	2	HS	180	85	0	100	Conifer							MOSS COVERED HUGE
								Hardwood							
12	LT	3	HS	90	90	20	80	Conifer	1						MOSS COVERED HUGE
								Hardwood							
12	RT	1	HT	0	95	25	75	Conifer							
								Hardwood	1	3					
12	RT	2	HT	0	90	45	55	Conifer							
								Hardwood		1	2				
12	RT	3	HS	40	90	70	30	Conifer							
								Hardwood							
20	LT	1	HT	0	80	50	40	Conifer							
								Hardwood	10	3					
20	LT	2	HT	0	80	60	40	Conifer							
								Hardwood	1	5					
20	LT	3	HT	0	80	70	30	Conifer							
								Hardwood	3	1					
20	RT	1	HS	110	35	35	65	Conifer	1						BEDROCK
								Hardwood							
20	RT	2	HS	120	15	25	75	Conifer	1						BEDROCK
								Hardwood							
20	RT	3	HS	130	25	25	75	Conifer	1						BEDROCK
								Hardwood	2						
29	LT	1	HS	120	95	35	65	Conifer	1						
								Hardwood		2	3				
29	LT	2	HS	160	75	65	35	Conifer							
								Hardwood	2						
29	LT	3	HS	160	60	60	40	Conifer							
								Hardwood	2	1					
29	RT	1	HT	30	90	5	95	Conifer	4	1					
								Hardwood							
29	RT	2	HS	70	100	0	80	Conifer	1	1		1			
								Hardwood							
29	RT	3	HS	70	100	10	80	Conifer		1	2				
								Hardwood	14						

37	LT	1	HS	75	95	5	95	Conifer						
								Hardwood	6			1		
37	LT	2	HS	70	100	10	90	Conifer		1				
								Hardwood	2	1	1	1		
37	LT	3	HS	70	100	10	90	Conifer						
								Hardwood	3			1		
37	RT	1	HS	90	80	40	60	Conifer	1					
								Hardwood						
37	RT	2	HS	90	90	15	85	Conifer				1		
								Hardwood	1					
37	RT	3	HS	110	90	20	80	Conifer		1				
								Hardwood	9					
44	LT	1	HS	70	95	70	30	Conifer						
								Hardwood	3	2		1		
44	LT	2	HS	100	100	40	60	Conifer						
								Hardwood	7	3				
44	LT	3	HS	100	90	40	60	Conifer						
								Hardwood	7					
44	RT	1	HS	110	95	5	95	Conifer						
								Hardwood	2	3				
44	RT	2	HS	70	95	10	90	Conifer						VINEMAPLE
								Hardwood	17			1		
44	RT	3	HS	95	75	70	30	Conifer						VINEMAPLE
								Hardwood	15					

COMMENT SUMMARY

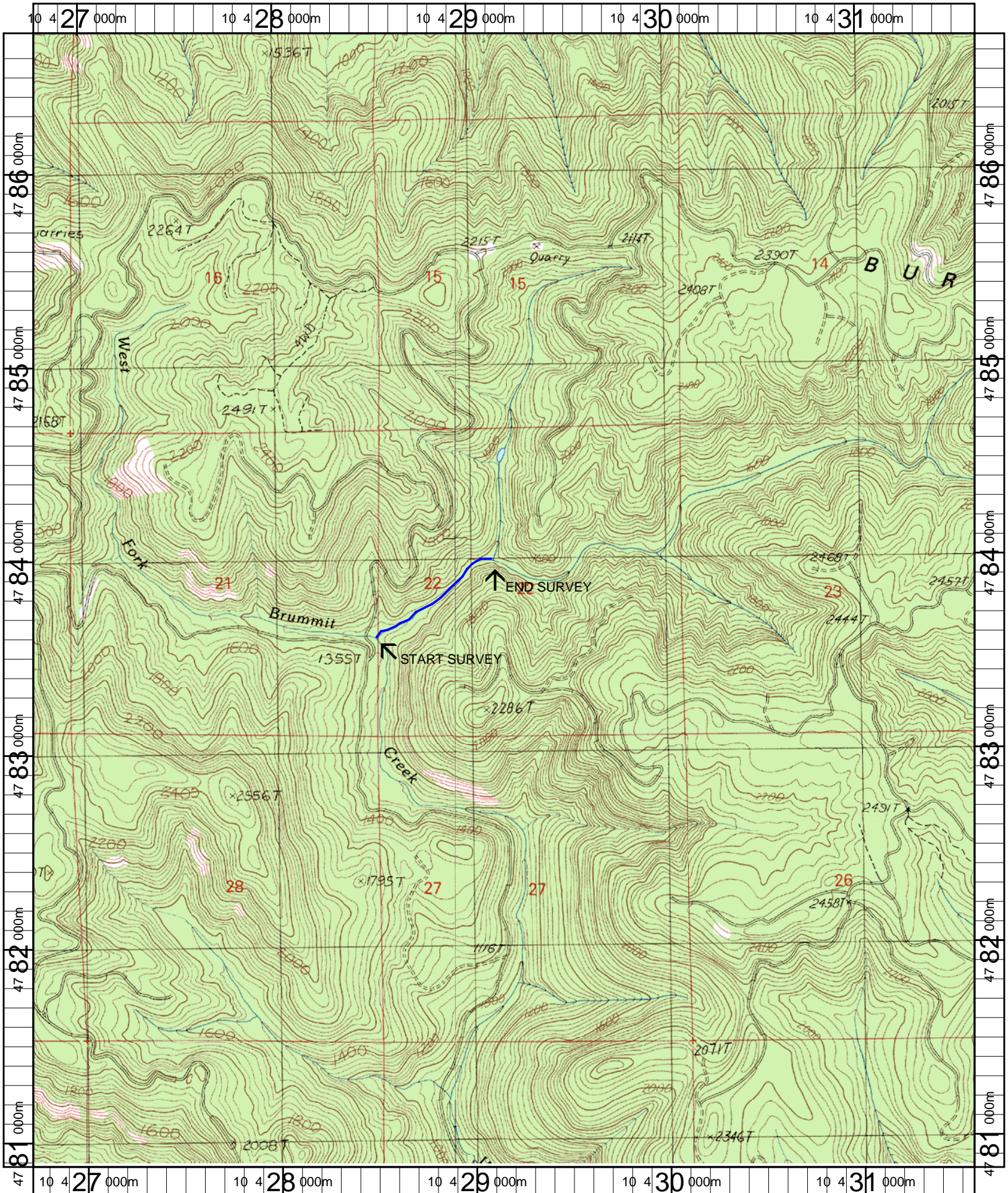
MONITORING AREA: 3-MS SITE ID: 356 STREAM: KARL CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	12.2		2ND PICTURE
4	CB	01	51.8	DJ	
6	SB	00	54.8		WIDTH IS ACW
8	LP	01	106.1	AM	1 RSN
9	DU	11	106.1		WIDTH IS ACW
11	LP	00	156.2	AM	1 RSN IN SMALL IP
12	SC	00	164		RIP#1
13	LP	00	179.9		LWD SITE 24
16	RI	00	255		4 " CUTT
18	SP	00	292.6	WL	BOBCAT TRACKS
20	LP	00	337.9	/SS	RIP#2, LWD SITE 25
29	RB	01	479.6		RIP#3
30	CB	00	489.6	TJ/	ACW=1.1
31	CB	00	520.9		6" CUTT
32	PP	00	546.1		5" CUTT
35	TP	00	596.2		1 - 6" CUTT AND 2 - 4" CUTT
36	CB	00	619.4		1" CUTT
37	RB	00	644.4	AM	3" PGS
42	LP	00	726.9		MANY CUTTS
44	RI	00	776.9		RIP#5, PICTURE
45	CB	00	793.2	AM	3" DUNNS
46	LP	00	804.5		LWD SITE 26, 4" CUTT

COMMENT SUMMARY

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
48	SP	00	814	WL	END, COUGAR TRACKS



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