

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

STREAM: King Creek (W39)
BASIN: Calapooia River
SURVEY TYPE: Pre-Tx
DATE: February 13, 2002
SURVEY CREW: Peggy Kavanagh, Charlie Stein
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.9 km²
USGS MAPS: Mt. Hagen
ECOREGION: Cascades Western Central

GENERAL DESCRIPTION:

The King Creek habitat survey extended 533 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 4.1 (range: 3.2 – 5.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 6.1 percent. Rapids (47%) and cascades (40%) dominated stream habitat. Cobble (45%) and gravel (30%) dominated stream substrate. Wood volume was low at 11.4 m³/100m.

COMMENTS:

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

REACH

T15S-R3E-S28NE

REACH

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	4.1	VWI Range:	3.2 - 5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
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	533	1,984	0
Secondary	182	251	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 1
Width: 3.4	Width: 7.0	20.8 (12.2 - 28)	16.0 (16 - 16)
Depth: 0.26	Height: 0.6	1.2 (1.1 - 1.4)	1.8 (1.8 - 1.8)

W:D ratio: 11.9

Entrenchment (ACW:FPW ratio): 3.2

Stream Flow Type: HF

Habitat Units/100m (total channel length): 5.2

Average Unit Gradient: 6.1%

Habitat Units/100m (primary channel length): 6.9

Water temperature (°C): 6.0 - 6.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	94	17.6
Volume (m ³):	61	11.4
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

KING CREEK PRE-TX (W-39)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

2/13/2002

REACH	T15S-R3E-S28NE							REACH					
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	10	327	3.1	0.23	902	0	0	3	27	48	23	0	
CULVERT CROSSING	3	44	2.4	0.17	110	0	0	2	30	57	12	0	
POOL-DAMMED	1	13	1.2	0.20	15	0	63	21	5	5	5	0	
POOL-LATERAL SCOUR	1	5	2.8	0.70	13	0	0	5	40	40	15	0	
POOL-PLUNGE	4	11	4.6	0.61	51	0	3	12	37	41	6	0	
POOL-STRAIGHT SCOUR	1	6	3.0	0.50	18	0	0	5	42	42	11	0	
PUDDLED UNIT	1	13	4.0	0.01	52	0	44	33	22	0	0	0	
RAPID/BOULDERS	11	294	3.6	0.25	1,061	0	3	6	31	44	16	0	
STEP/BOULDERS	1	2	4.1	0.20	8	0	0	0	10	40	50	0	
STEP/LOG	3	1	4.3	0.05	5	0	0	2	31	57	10	0	
STEP/STRUCTURE	1	0	0.2	0.01	0	0	0	0	30	60	10	0	
Total:	37	715	3.4	0.26	2,235	0	Avg: 4	6	30	45	16	0	

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	13	1.2	0.20	15	0.67%	0	0.0	
Scour Pools	6	22	4.1	0.61	82	3.67%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	0	0			0	0.00%	0	0.0	
Rapids	11	294	3.6	0.25	1,061	47.49%	0	0.0	
Cascades	10	327	3.1	0.23	902	40.36%	0	0.0	
Step/Falls	5	3	3.5	0.07	13	0.57%	0	0.0	
Dry	1	13	4.0	0.01	52	2.33%	0	0.0	
Culverts	3	44	2.4	0.17	110	4.91%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	7	9.8	13.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	2.8	3.8
Pool frequency (channel widths/pool):	14.7		
Residual pool depth (avg):	0.36		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **8-W** SITE ID: **39** KING CREEK PRE-TX (W-39)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	CC	00	14.5	CC	1.4 x 2.8, NO YELLOW SIGN
3	CB	00	69.5	BV	
6	RB	00	174.5		SITE #2
9	SB	00	211		H = .8
13	SL	01	263.4		H = .4
17	SL	01	270.6		H = .5
25	SL	02	352.9		H = .8
27	RB	00	393.9	SS/, WL	ELK SCAT
28	SP	00	399.9		SG = 2 SQ M
30	CB	00	469.9	SS/	
31	CC	01	485.9		2 x 3.8, CULV BOTTOM IS FILLED
33	RB	02	485.9	DJ	
34	SS	02	485.9		H = .3, SUBSURFACE FLOW
36	DP	02	485.9		RSN
37	CB	00	532.9		END SIGN AT BIG MAPLE/