

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

STREAM: Upper Knife Creek (MS164)
BASIN: Millicoma River
SURVEY TYPE: Pre-Tx
DATE: February 6, 2002
SURVEY CREW: Sara Meguffy, Sarah Schuster
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.5km²
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Upper Knife Creek habitat survey extended 505 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.7 (range: 1.3 – 2.2). Land uses for the reach were active timber harvest and mature (50-90 cm dbh) trees. The average unit gradient was 4.0 percent. Riffles (57%) dominated stream habitat. Gravel (31%) and bedrock (23%) dominated stream substrate. Wood volume was low at 10.9 m³/100m.

COMMENTS:

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

The crew noted several debris jams during the survey.

REACH

T23S-R11W-S12NE

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	1.7	VWI Range:	1.3 - 2.2

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	505	2,593	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 5.4	Width: 8.0	11.5 (8.1 - 13.5)	12.1 (12.1 - 12.1)
Depth: 0.33	Height: 0.6	1.1 (1 - 1.2)	3.7 (3.7 - 3.7)

W:D ratio: 14.3
Stream Flow Type: MF
Average Unit Gradient: 4.0%
Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.4
Habitat Units/100m (total channel length): 7.9
Habitat Units/100m (primary channel length): 7.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	MT
Riparian Vegetation:	D15	G

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):	67	13.3
Volume (m ³):	52	10.3
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

KNIFE CR UPPER PRE-TX (MS-164)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

2/6/2002

REACH		T23S-R11W-S12NE					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/BEDROCK	1	16	4.6	0.15	75	0	5	5	5	5	0	80
POOL-DAMMED	3	25	5.5	0.70	137	0	8	27	45	8	8	3
POOL-LATERAL SCOUR	6	63	4.8	0.53	288	0	6	25	30	12	6	21
POOL-PLUNGE	4	29	5.3	0.65	146	0	8	21	38	13	9	13
RAPID/BEDROCK	3	72	5.2	0.20	385	0	5	12	15	8	3	57
RAPID/BOULDERS	1	8	5.2	0.30	44	0	5	10	20	20	45	0
RIFFLE	17	287	5.3	0.24	1,490	0	6	13	33	19	9	21
STEP/BEDROCK	1	1	3.3	0.05	2	0	0	0	0	0	0	100
STEP/COBBLE	1	2	7.6	0.10	18	0	5	15	20	50	10	0
STEP/LOG	3	1	7.2	0.07	11	0	10	17	43	13	13	3
Total:	40	505	5.4	0.33	2,593	0	Avg: 6	16	31	15	9	23

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	25	5.5	0.70	137	5.27%	0	0.0
Scour Pools	10	92	5.0	0.58	433	16.71%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	17	287	5.3	0.24	1,490	57.44%	0	0.0
Rapids	4	80	5.2	0.23	429	16.53%	0	0.0
Cascades	1	16	4.6	0.15	75	2.87%	0	0.0
Step/Falls	5	4	6.5	0.07	30	1.17%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY			
	Total	Total of all Channel Lengths	
		# / Km	Primary Channel Length # / Km
All Pools:	13	25.7	25.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	9.9	9.9
Pool frequency (channel widths/pool):	4.9		
Residual pool depth (avg):	0.43		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **3-MS** SITE ID: **164** **KNIFE CR UPPER PRE-TX (MS-164)**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	CR	00	16.2		T = 6
3	SR	00	25.8		H = .35
6	LP	00	65.7		SG = 2 SQ M
8	SL	00	83.3		H = .3
9	DP	00	92.5	WL	ELK TRACKS, SG = 8 SQ M
12	RI	00	135.4	DJ	
14	LP	00	146.4		SG = 6 SQ M
21	RI	00	260.6		H = .45
23	PP	00	283.5	DJ	
24	SL	00	284.15		H = .4
26	RI	00	316.95	DJ	
29	LP	00	343.95	DJ	
32	SL	00	367.75		H = .55, SG = 8 SQ M
33	DP	00	375.65	SS/, DJ	
35	LP	00	408.55	DJ, WL	ELK TRACKS, SG = 10 SQ M
36	RI	00	433.55		SG = 8 SQ M
39	LP	00	488.95	DJ	