

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

STREAM: West Fork Millicoma River (MS-64)
BASIN: Millicoma River
SURVEY TYPE: Post-Tx
DATE: February 10, 2005
SURVEY CREW: Jennifer Schmitt, Neil Jensen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 67.7 km²
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The West Fork Millicoma River habitat survey extended 564 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.2 (range: 1.5-3.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.6 percent. Scour pools (47%) dominated stream habitat. Gravel (53%) dominated stream substrate. Wood volume was very high at 51.1 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

REACH 1

T23S-R10W-S08SW

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	0%
Moderate V-shape	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.2	VWI Range:	1.5 - 3

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 Channel	564	3,205	0
Secondary Channel	0	0	0
Off-Channel Units	18	35	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 6
Width: 5.5	Width: 13.4	19.3 (15.6 - 22)	23.2 (16.9 - 31.2)
Depth: 0.47	Height: 0.7	1.4 (1.1 - 1.7)	1.8 (1.4 - 2.5)

W:D ratio: 19.5

Entrenchment (ACW:FPW ratio): 1.5

Stream Flow Type: LF

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

Average Unit Gradient: 1.6%

Habitat Units/100m (primary channel length): 5.7

Water temperature (°C): 8.5 - 8.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D30	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):	185	32.8
Volume (m ³):	288	51.1
Key pieces (>=12m x 0.60m):	16	2.8

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/10/2005

REACH 1		T23S-R10W-S08SW					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	47	6.2	0.28	290	0	1	5	5	0	5	85
CASCADE/BOULDERS	2	48	6.5	0.25	300	0	3	5	52	8	11	21
POOL-BACKWATER	2	18	2.3	0.21	35	0	20	42	6	0	3	29
POOL-DAMMED	2	30	4.5	0.67	127	0	6	19	61	3	7	5
POOL-LATERAL SCOUR	13	245	6.4	0.79	1,530	0	7	30	47	2	2	12
RAPID/BEDROCK	3	80	5.8	0.24	463	0	1	3	5	2	5	83
RIFFLE	3	78	4.2	0.22	320	0	2	2	92	2	0	3
RIFFLE W/ POCKETS	1	13	5.2	0.20	69	0	2	5	88	5	0	0
STEP/COBBLE	5	23	4.8	0.11	106	0	2	1	91	3	3	0
Total:	32	582	5.5	0.47	3,241	0	Avg: 5	17	53	2	3	19

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	48	3.4	0.44	163	5.02%	0	0.0	
Scour Pools	13	245	6.4	0.79	1,530	47.21%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	4	91	4.5	0.21	389	12.00%	0	0.0	
Rapids	3	80	5.8	0.24	463	14.30%	0	0.0	
Cascades	3	95	6.4	0.26	590	18.20%	0	0.0	
Step/Falls	5	23	4.8	0.11	106	3.27%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

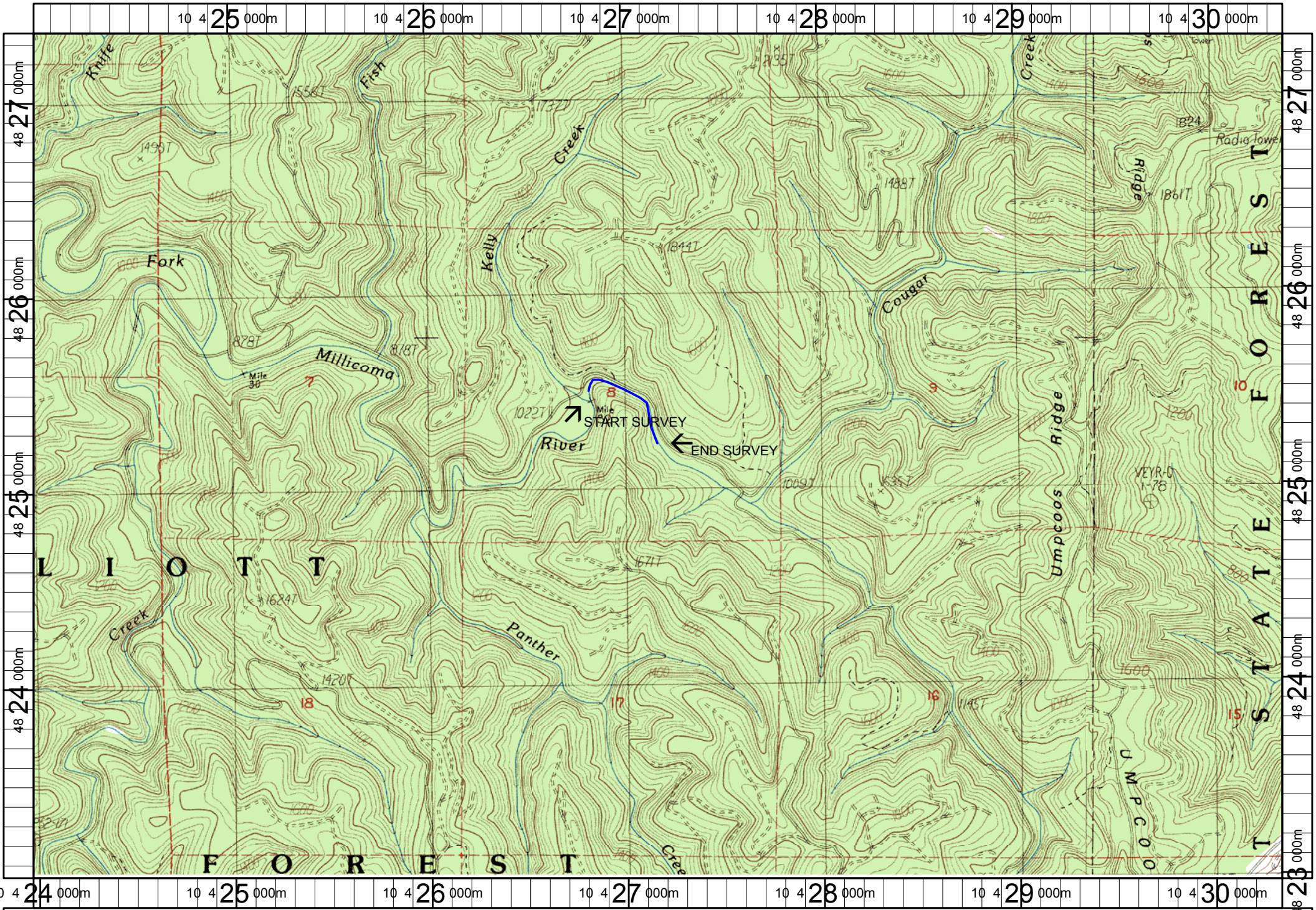
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	17	29.2	30.2
Pools >=1m deep:	2	3.4	3.5
Complex pools (LWD pieces>=3):	10	17.2	17.7
Pool frequency (channel widths/pool):	2.6		
Residual pool depth (avg):	0.54		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **64** WF MILLICOMA POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
5	RR	01	141.4	/LI		
7	CB	00	157.9	HS, DJ	PLACED WOOD	
8	DP	00	169.9	DJ	8.0 M LONG JAM	
10	LP	00	181.8	SS/	DRY TRIB ON LEFT	
11	CB	00	213.6		REDD	
12	LP	00	226.5	HS	PLACED WOOD, REDDS IN TAILOUT	
13	LP	00	261.5	HS	PLACED WOOD	
14	LP	00	282.4	HS, LS/	PLACED WOOD	
16	LP	00	313.7	HS	PLACED WOOD, STEELHEAD	
17	RP	00	326.9	HS	PLACED WOOD, REDDS	
22	RI	00	403.7	/SS, WL	WILDLIFE TRAIL	
25	LP	00	461.4	DJ, HS	PLACED WOOD	
26	SC	00	464.5	HS, DJ	PLACED WOOD	
27	LP	00	477.3	DJ, HS	STEELHEAD SMOLT, PLACED WOOD	
28	DP	00	494.8		STEELHEAD SMOLT	
29	LP	00	514.3		STEELHEAD SMOLT	



Name: ELK PEAK
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 427171 E 4825164 N
 Caption: WF MILLICOMA #64 RESTORATION SITE - MILLICOMA BASIN