

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: March 8, 2006
SURVEY CREW: Scott Venables, Seth Ring
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 67.7 km³
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The West Fork Millicoma River habitat survey extended 515 meters. The channel was constrained by hillslopes in an open V-shaped valley. The average valley width index was 2.9 (range: 1.8-5.5). Land use for the reach was mature (50-90 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.1 percent. Scour pools (54%) and riffles (23%) dominated stream habitat. Bedrock (31%) and gravel (29%) dominated stream substrate. Wood volume was high at 40.7 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-S08NW

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	0%	Multiple Terraces	0%
Open V-shape	100%	Wide Floodplain	0%
Valley Width Index	2.9	VWI Range:	1.8 - 5.5

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 Channel	515	4,109	0
Secondary Channel	17	106	0
Off-Channel Units	36	89	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 7.9	Width: 13.0	24.7 (15.5 - 40.4)	30.3 (20.1 - 53.1)
Depth: 0.62	Height: 0.9	1.8 (1.7 - 2.1)	0.9 (2.7 - 35.5)

W:D ratio: 14.3
 Stream Flow Type: MF
 Average Unit Gradient: 1.1%
 Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.9
 Habitat Units/100m (total channel length): 4.9
 Habitat Units/100m (primary channel length): 5.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	ST
Riparian Vegetation:	D30	C50

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):	146	28.3
Volume (m ³):	210	40.7
Key pieces (>=12m x 0.60m):	11	2.1

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

3/8/2006

REACH 1		T23S-R10W-S08NW					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	12	12.2	0.35	145	0	0	0	5	5	5	85
POOL-BACKWATER	2	18	3.4	0.45	58	0	73	15	3	0	0	10
POOL-ISOLATED	1	2	9.3	0.50	18	0	68	16	11	5	0	0
POOL-LATERAL SCOUR	12	294	8.7	0.99	2,329	0	5	15	43	20	5	11
RAPID/BEDROCK	3	81	9.3	0.30	748	0	0	5	3	0	3	89
RIFFLE	8	161	6.3	0.34	996	0	1	4	33	25	4	33
STEP/BEDROCK	1	1	10.2	0.10	9	0	0	0	0	0	0	100
Total:	28	568	7.9	0.62	4,303	0	Avg: 10	10	29	16	4	31

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	19	5.4	0.47	76	1.77%	0	0.0	
Scour Pools	12	294	8.7	0.99	2,329	54.14%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	8	161	6.3	0.34	996	23.14%	0	0.0	
Rapids	3	81	9.3	0.30	748	17.37%	0	0.0	
Cascades	1	12	12.2	0.35	145	3.37%	0	0.0	
Step/Falls	1	1	10.2	0.10	9	0.21%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

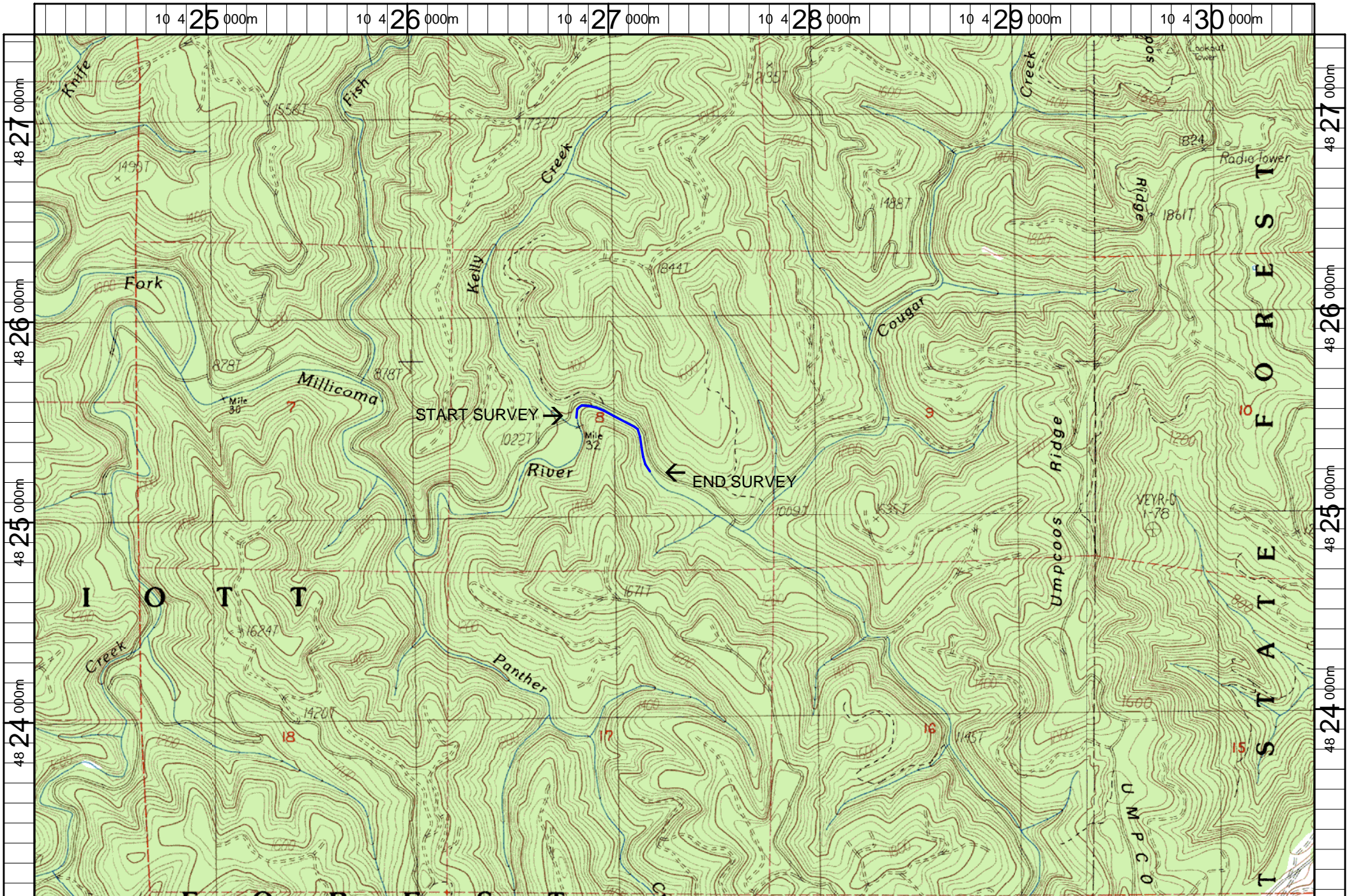
POOL SUMMARY			
	Total	Total of all Channel Lengths	
		# / Km	Primary Channel Length # / Km
All Pools:	15	26.4	29.1
Pools >=1m deep:	6	10.6	11.6
Complex pools (LWD pieces>=3):	7	12.3	13.6
Pool frequency (channel widths/pool):	2.9		
Residual pool depth (avg):	0.69		

Comment Summary

Restoration Monitoring Sites 2006

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SR	00	0.9		H = 1.4 m, T = 7.0 AT 1pm	
4	LP	00	60.9	SS/		
5	RR	01	87	/SS		
6	RR	01	116.4	HS	10 LOGS	
11	CR	00	149.6	HS	14 LOGS	
12	LP	01	161.9	TJ/, SS/		
13	RI	11	161.9		T = 7.0 AT 2:50 pm, ACW = 2.9	
16	LP	00	205.6	HS	2 LOGS	
17	LP	00	265.3	HS	6 LOGS	
18	LP	00	299.4	HS	7 LOGS	
25	LP	00	444.5	HS	7 LOGS	



Name: ELK PEAK (OR)
 Date: 2/15/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0427304 E 4825240 N
 Caption: WF MILLICOMA CREEK RESTORATION SITE - MILLICOMA BASIN