

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

STREAM: West Fork Millicoma River (MS-219)
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 491 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.9 (range: 2.5-6.0). Land use for the reach was mature (50-90 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.4 percent. Scour pools (83%) dominated stream habitat. Gravel (34%) and bedrock (25%) dominated stream substrate. Wood volume was high at 36.0 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-S08SE

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	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.9	VWI Range:	2.5 - 6

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	491	4,773	0
Secondary Channel	35	45	0
Off-Channel Units	16	16	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 7.8	Width: 14.7	23.1 (17.5 - 29.1)	28.0 (24.8 - 31.6)
Depth: 0.66	Height: 0.9	1.9 (1.7 - 2)	2.7 (2.3 - 3.2)

W:D ratio: 15.9

Entrenchment (ACW:FPW ratio): 1.6

Stream Flow Type: MF

Habitat Units/100m (total channel length): 3.7

Average Unit Gradient: 0.4%

Habitat Units/100m (primary channel length): 4.1

Water temperature (°C): 7.0 - 7.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	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):	88	17.9
Volume (m ³):	177	36.0
Key pieces (>=12m x 0.60m):	9	1.8

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

3/8/2006

REACH 1		T23S-R10W-S08SE					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
POOL-LATERAL SCOUR	11	405	10.1	1.01	4,031	0	13	19	34	23	4	7
RIFFLE	7	131	5.0	0.25	760	0	1	4	44	17	1	32
STEP/BEDROCK	2	7	4.8	0.14	43	0	0	3	0	0	3	95
Total:	20	542	7.8	0.66	4,834	0	Avg: 7	12	34	18	3	25

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	0	0			0	0.00%	0	0.0	
Scour Pools	11	405	10.1	1.01	4,031	83.39%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	131	5.0	0.25	760	15.73%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	7	4.8	0.14	43	0.89%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

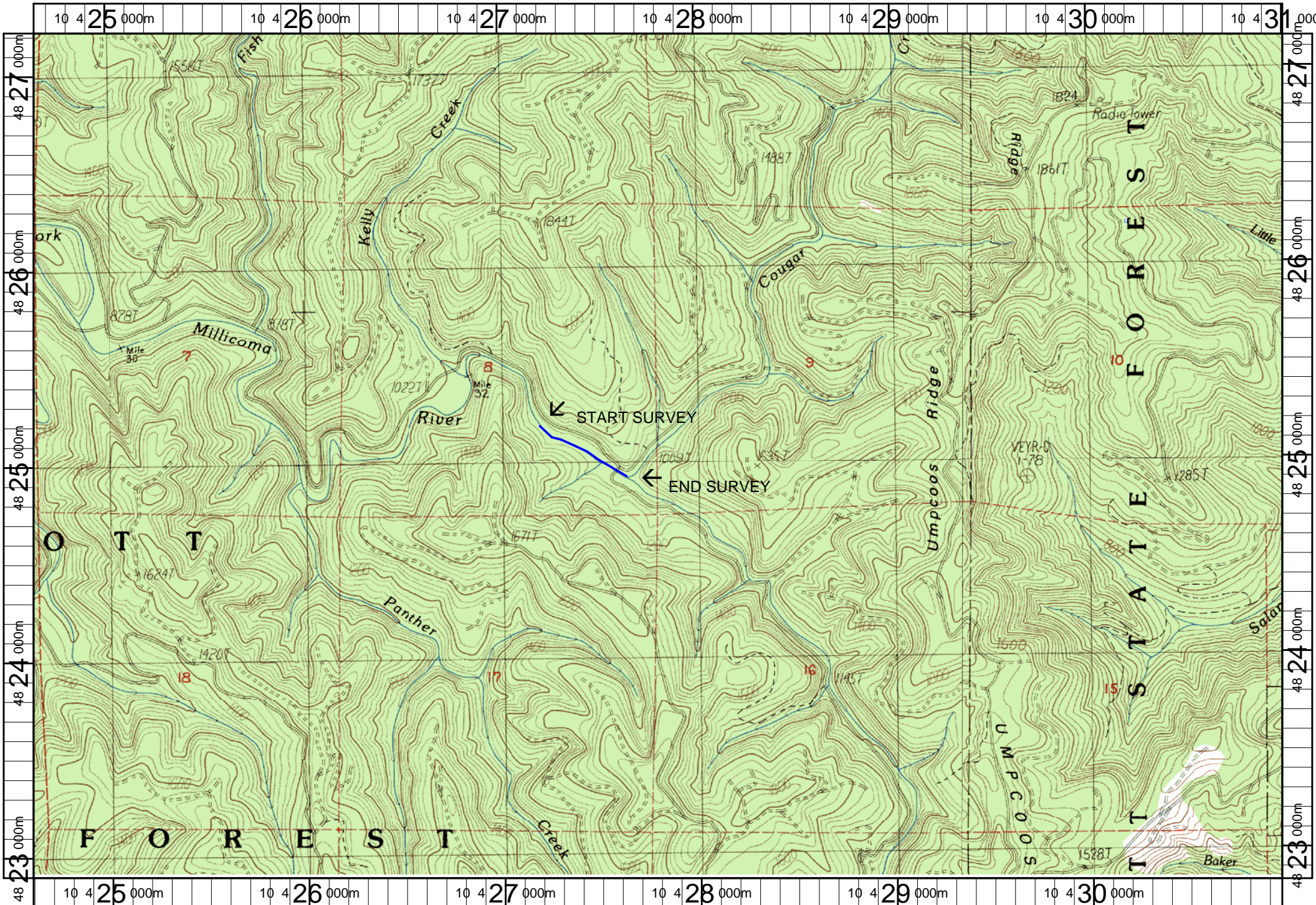
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	11	20.3	22.4
Pools >=1m deep:	6	11.1	12.2
Complex pools (LWD pieces>=3):	7	12.9	14.2
Pool frequency (channel widths/pool):	3.4		
Residual pool depth (avg):	0.70		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **3-MS** SITE ID: **219** WEST FORK MILLICOMA POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	01	20.2	/TJ, /SS	T=7.0 AT 16:00	
2	SR	11	20.2		H = 1.25, ACW = 1.3	
3	RI	11	20.2		T = 7.0 AT 16:00	
5	LP	00	99.7	HS	LOGS	
6	LP	00	131.1	HS, /SS		
8	SR	00	195.9		H = 0.6	
10	LP	00	247.5	HS	ADULT SALMONID CARCASS	
12	RI	00	296.1	/SS		
13	LP	01	376.2	HS, /TJ		
14	RI	11	376.2		T = 6.0 AT 17:40, ACW = 2.0	
15	RI	02	376.2	HS	ACW = 8.0	
16	LP	00	403.4	HS		
18	RI	00	443.8	CC	2.5 m x 4.0 m,	
20	RI	00	491.3	HS, TJ/		



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

Location: 10 0427799 E 4825028 N
 Caption: WF MILLICOMA CREEK #219 RESTORATION SITE - MILLICOMA BASIN