

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: 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 527 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.1 (range: 3.4-7.0). 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 (64%) dominated stream habitat. Gravel (58%) and bedrock (26%) dominated stream substrate. Wood volume was very high at 49.0 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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.1	VWI Range:	3.4 - 7

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	527	3,688	0
Secondary Channel	0	0	0
Off-Channel Units	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.1	Width: 12.2	20.9 (14.3 - 40.2)	25.7 (16.5 - 49.2)
Depth: 0.57	Height: 0.6	1.1 (1 - 1.2)	1.2 (1.1 - 1.4)

W:D ratio: 22.8

Entrenchment (ACW:FPW ratio): 1.7

Stream Flow Type: LF

Habitat Units/100m (total channel length): 4.7

Average Unit Gradient: 1.6%

Habitat Units/100m (primary channel length): 4.7

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	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):	173	32.8
Volume (m ³):	258	49.0
Key pieces (>=12m x 0.60m):	18	3.4

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/10/2005

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
CULVERT CROSSING	1	17	2.8	0.15	49	0	0	0	0	0	0	100
POOL-BEAVER DAM	1	42	5.4	1.29	229	0	10	14	62	0	14	0
POOL-LATERAL SCOUR	9	256	8.1	1.02	2,273	0	8	17	54	2	0	19
POOL-PLUNGE	1	13	6.3	0.80	84	0	8	10	20	0	0	61
RAPID/BOULDERS	1	17	5.1	0.13	87	0	2	5	93	0	0	0
RIFFLE	4	112	6.0	0.18	638	0	2	3	81	5	3	7
RIFFLE W/ POCKETS	1	41	4.5	0.35	184	0	2	5	93	0	0	0
STEP/BEDROCK	2	4	4.8	0.30	21	0	0	0	0	0	0	100
STEP/COBBLE	4	24	5.2	0.21	122	0	2	1	91	6	0	0
STEP/STRUCTURE	1	0	2.3	0.20	0	0	0	0	0	0	0	100
Total:	25	527	6.1	0.57	3,688	0	Avg: 4	8	58	3	1	26

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	42	5.4	1.29	229	6.21%	0	0.0	
Scour Pools	10	269	7.9	1.00	2,357	63.93%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	5	153	5.7	0.22	822	22.29%	0	0.0	
Rapids	1	17	5.1	0.13	87	2.35%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	7	28	4.7	0.23	144	3.90%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	17	2.8	0.15	49	1.32%	0	0.0	

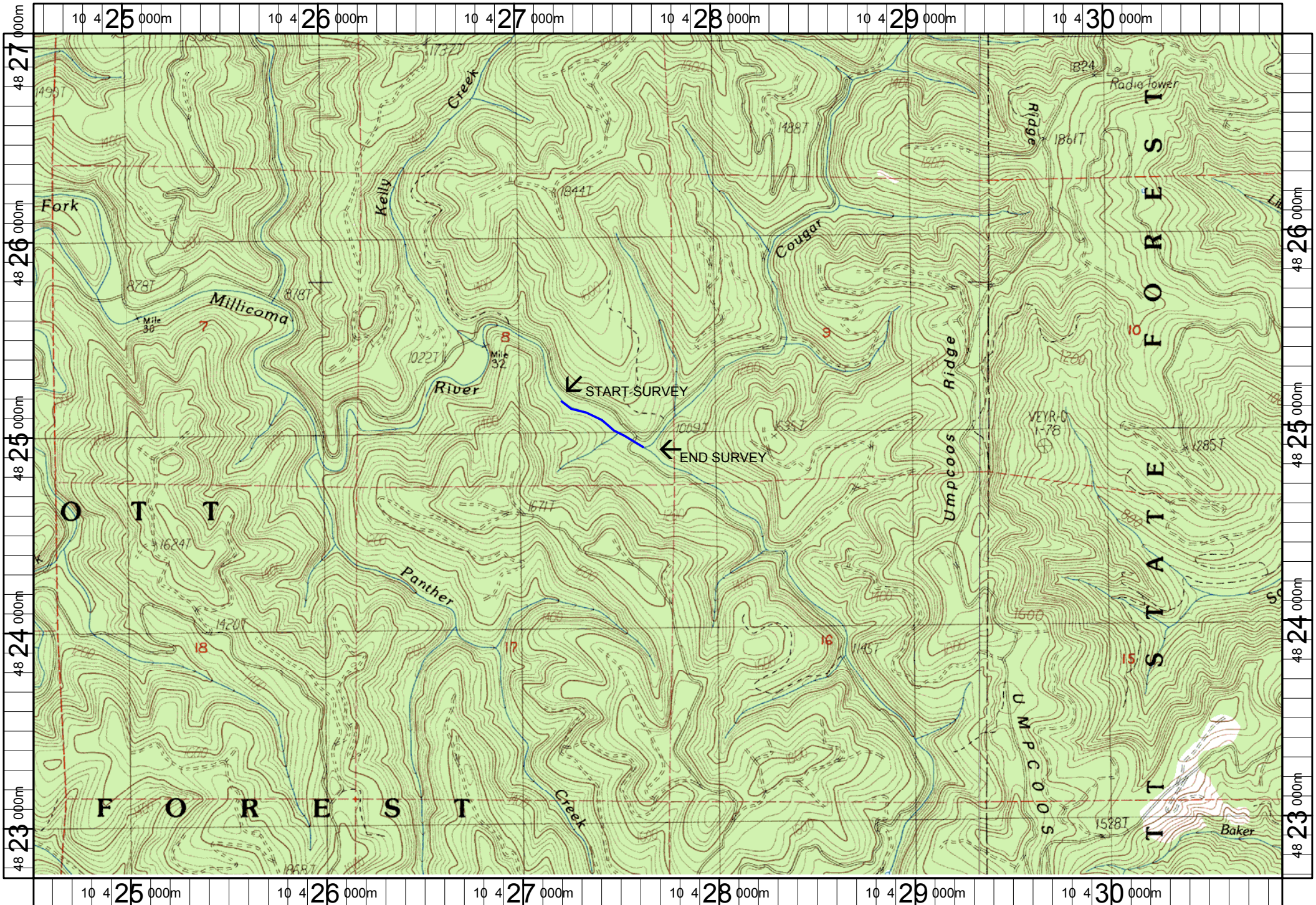
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	11	20.9	20.9
Pools >=1m deep:	4	7.6	7.6
Complex pools (LWD pieces>=3):	8	15.2	15.2
Pool frequency (channel widths/pool):	3.9		
Residual pool depth (avg):	0.80		

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	26	/SS		
3	SC	00	63.7	HS	WOOD	
4	LP	00	109.1	HS, SS/	PLACED WOOD, REDDS	
5	SC	00	111.6	HS	PLACED WOOD	
6	LP	00	139.5	HS, DJ,LS/	PLACED WOOD W CABLES	
7	RI	00	156.7	HS, DJ	PLACED WOOD W CABLES	
8	LP	00	197.2	HS	PLACED WOOD	
9	PP	00	210.5	BV	SMALL RIFFLE BETWEEN POOLS	
12	SR	00	227.95		H = .2	
13	LP	00	254.35	HS, WL	PLACED WOOD, WILDLIFE TRAIL	
15	LP	00	289.35	BV, /LI		
16	RI	00	322.05	/SS, BV		
17	RI	00	358.45	BV, BD		
18	BP	00	400.85	DJ,BV,HS	PLACED WOOD, STEELHEAD SMOLT	
19	SC	00	409.15		REDDS	
20	LP	00	426.15	DJ, HS	PLACED WOOD, STEELHEAD SMOLT	
21	SC	00	430.05	BV	REDDS	
22	LP	00	468.35	BV, WL	WILDLIFE TRAILS, FISH CARCASS	
23	SS	00	468.55		H = .4	
24	CC	00	485.95	CC	METAL CULVERT 4 x 2.7M	



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

Location: 10 427710 E 4824875 N
 Caption: WF MILLICOMA #219 RESTORATION SITE - MILLICOMA BASIN