

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 1, 2004
SURVEY CREW: Michael Scheu, Jeremiah Bernier
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 521 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.0 (range: 1.0-3.0). Land use for the reach was mature (50-90 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 1.7 percent. Scour pools (37%) and riffles (26%) dominated stream habitat. Gravel (36%) and bedrock (34%) dominated stream substrate. Wood volume was very high at 57.7 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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.0	VWI Range:	1 - 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	521	4,038	0
Secondary	44	171	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 7.6	Width: 13.5	17.6 (13.8 - 24.5)	20.2 (16.5 - 22)
Depth: 0.54	Height: 0.7	1.4 (1.2 - 1.8)	2.0 (1.7 - 2.5)

W:D ratio: 19.8 Entrenchment (ACW:FPW ratio): 1.3
Stream Flow Type: MF Water temp (°C): 8.0 - 8.0
Avg. Unit Gradient: 1.7% Habitat Units/100m: 5.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	YT
Riparian Vegetation:	D15	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</u>
All pieces (>=3m x 0.15m):	109	20.9
Volume (m ³):	301	57.7
Key pieces (>=10m x 0.60m):	27	5.2

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	3	44	9.3	0.40	358	0	0	0	2	3	8	87	
CASCADE/BOULDERS	1	5	1.1	0.05	6	0	0	5	85	10	0	0	
POOL-BACKWATER	1	4	2.3	0.40	10	0	0	24	14	5	10	48	
POOL-DAMMED	1	24	9.8	0.90	230	0	0	20	55	10	5	10	
POOL-ISOLATED	1	15	3.0	0.30	46	0	0	40	10	0	0	50	
POOL-LATERAL SCOUR	9	187	8.5	1.02	1,513	0	1	20	45	13	3	17	
POOL-PLUNGE	1	8	5.0	0.60	38	0	0	5	5	0	10	80	
RAPID/BEDROCK	2	61	8.4	0.25	511	0	0	1	1	0	1	98	
RAPID/BOULDERS	2	32	8.8	0.30	253	0	0	13	40	15	0	33	
RIFFLE	7	171	6.3	0.36	1,077	0	0	4	49	30	1	16	
STEP/BEDROCK	1	6	10.5	0.10	63	0	0	0	0	0	0	100	
STEP/COBBLE	3	11	9.7	0.30	106	0	2	5	48	39	5	2	
Total:	32	566	7.6	0.54	4,209	0	Avg: 0	11	36	16	3	34	

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	43	5.0	0.53	286	6.79%	0	0.0
Scour Pools	10	194	8.2	0.98	1,551	36.84%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	7	171	6.3	0.36	1,077	25.59%	0	0.0
Rapids	4	93	8.6	0.28	764	18.15%	0	0.0
Cascades	4	49	7.3	0.31	363	8.63%	0	0.0
Step/Falls	4	17	9.9	0.25	169	4.02%	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>	<u># / Km</u>	
All Pools:	13	23.0	44
Pools >=1m deep:	5	8.8	
Complex pools (LWD pieces>=3):	8	14.1	
Pool frequency (channel widths/pool):	3.2		
Residual pool depth (avg):	0.58		

STREAM SUMMARY

WEST FORK MILLICOMA POST-TX (MS-64)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
32	566	7.6	0.54	4,209	0	11	36	16	3	34	

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	286	6.79%
Scour Pools	1,551	36.84%
Glides	0	0.00%
Riffles	1,077	25.59%
Rapids	764	18.15%
Cascades	363	8.63%
Step/Falls	169	4.02%
Dry	0	0.00%
Culverts	0	0.00%

Comment Summary

Oregon Plan Monitoring Sites 2002

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

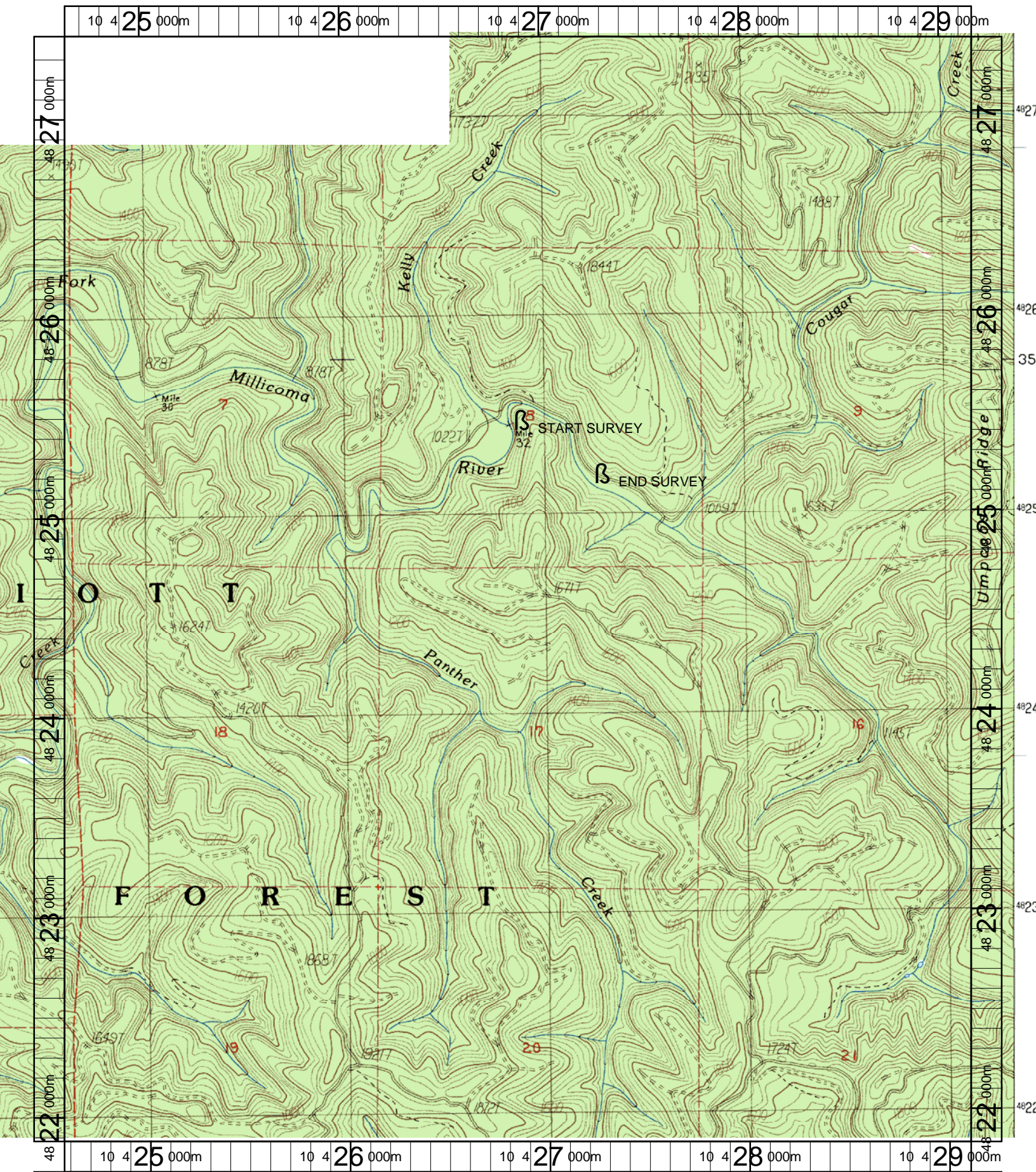
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SR	00	6		H=1.5M	
3	RR	00	45.5	SS/		
9	IP	10	128.8	/LI,LA		
11	PP	00	136.3	/LA	BANK EROSION/	
12	CR	00	147.3	HS	2 LOGS W/ BLDRS	
13	DP	00	170.8		SG=4M	
14	RI	01	204.8	HS	SG=20M, 2 LOGS	
15	CB	11	204.8		T=8C, ACW=2.3M	
16	LP	00	218.8	BV, HS	SG=16M, STHD REDD	
17	LP	00	247.8		SG=18M	
18	LP	00	269.5	HS, /CS		
19	SC	00	272		STHD	
20	LP	00	304.5	HS, BV	SG=15M	
21	RI	00	334.5	BV	SG=10M	
22	RI	00	359.5	BV		
24	LP	00	401.8	HS	SG=7M, 1 LOG	
25	SC	00	407.3		STHD REDD	
26	LP	00	425	BV	SG=10M, STHD REDD	
27	RB	00	436.9	HS, BV	SG=5M, 10 LOGS	
28	LP	00	463.3		FISH BONES, FRY	
29	SC	00	465.8		SG=6M	

Comment Summary

Oregon Plan Monitoring Sites 2002

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

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
31	RI	00	505.8		SG=30M	
32	RI	00	521.3		SG=5M	



Name: ELK PEAK
 Date: 1/21/2004
 Scale: 1 inch equals 2000 feet

Location: 10 426862 E 4824625 N
 Caption: WF MILLICOMA #64 RESTORATION SITE - MILLICOMA BASIN