

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

STREAM: Elk Creek Tributary (MS-284)
BASIN: Millicoma River
SURVEY TYPE: Pre-Tx
DATE: February 8, 2005
SURVEY CREW: Neil Jensen, Jennifer Schmitt
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 17.6 km²
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Elk Creek Tributary habitat survey extended 618 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 14.0 (range: 1.2-55.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 6.9 percent. Cascades (49%) and riffles (34%) dominated stream habitat. Gravel (39%) and cobble (34%) dominated stream substrate. Wood volume was very low at 9.8 m³/100m.

COMMENTS:

There was one potential barrier to upstream fish migration in the surveyed length. This was a step to a culvert in unit 14 (209 m).

REACH 1

T23S-R11W-S25SE

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	14.0	VWI Range:	1.2 - 55

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	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	618	752	1
Secondary Channel	0	0	0
Off-Channel Units	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 5
Width: 1.4	Width: 2.8	3.3 (2.5 - 3.8)	3.8 (2.9 - 4.5)
Depth: 0.15	Height: 0.3	0.7 (0.62 - 0.7)	1.5 (0.9 - 2.1)

W:D ratio: 8.3
 Stream Flow Type: LF
 Average Unit Gradient: 6.9%
 Water temperature (°C): 7.5 - 7.5

Entrenchment (ACW:FPW ratio): 1.2
 Habitat Units/100m (total channel length): 5.7
 Habitat Units/100m (primary channel length): 5.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
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):	80	12.9
Volume (m ³):	61	9.8
Key pieces (>=12m x 0.60m):	0	0.0

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/8/2005

REACH 1		T23S-R11W-S25SE					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/BOULDERS	11	313	1.1	0.09	368	0	0	7	34	36	18	5
CULVERT CROSSING	1	11	0.4	0.01	4	0	0	0	0	0	0	100
DRY UNIT	1	4	2.4	0.00	9	0	0	15	25	60	0	0
POOL-LATERAL SCOUR	4	23	2.0	0.44	44	0	1	23	43	30	4	0
POOL-PLUNGE	4	17	2.2	0.34	33	0	0	29	43	20	9	0
RAPID/BOULDERS	1	29	1.2	0.05	34	0	0	17	44	33	6	0
RIFFLE	9	221	1.2	0.10	259	0	0	9	52	37	2	0
STEP/LOG	4	1	1.2	0.01	1	0	0	29	28	44	0	0
Total:	35	618	1.4	0.15	752	0	Avg: 0	14	39	34	8	5

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	8	40	2.1	0.39	77	10.22%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	9	221	1.2	0.10	259	34.41%	0	0.0	
Rapids	1	29	1.2	0.05	34	4.56%	0	0.0	
Cascades	11	313	1.1	0.09	368	49.00%	0	0.0	
Step/Falls	4	1	1.2	0.01	1	0.12%	0	0.0	
Dry	1	4	2.4	0.00	9	1.18%	0	0.0	
Culverts	1	11	0.4	0.01	4	0.51%	0	0.0	

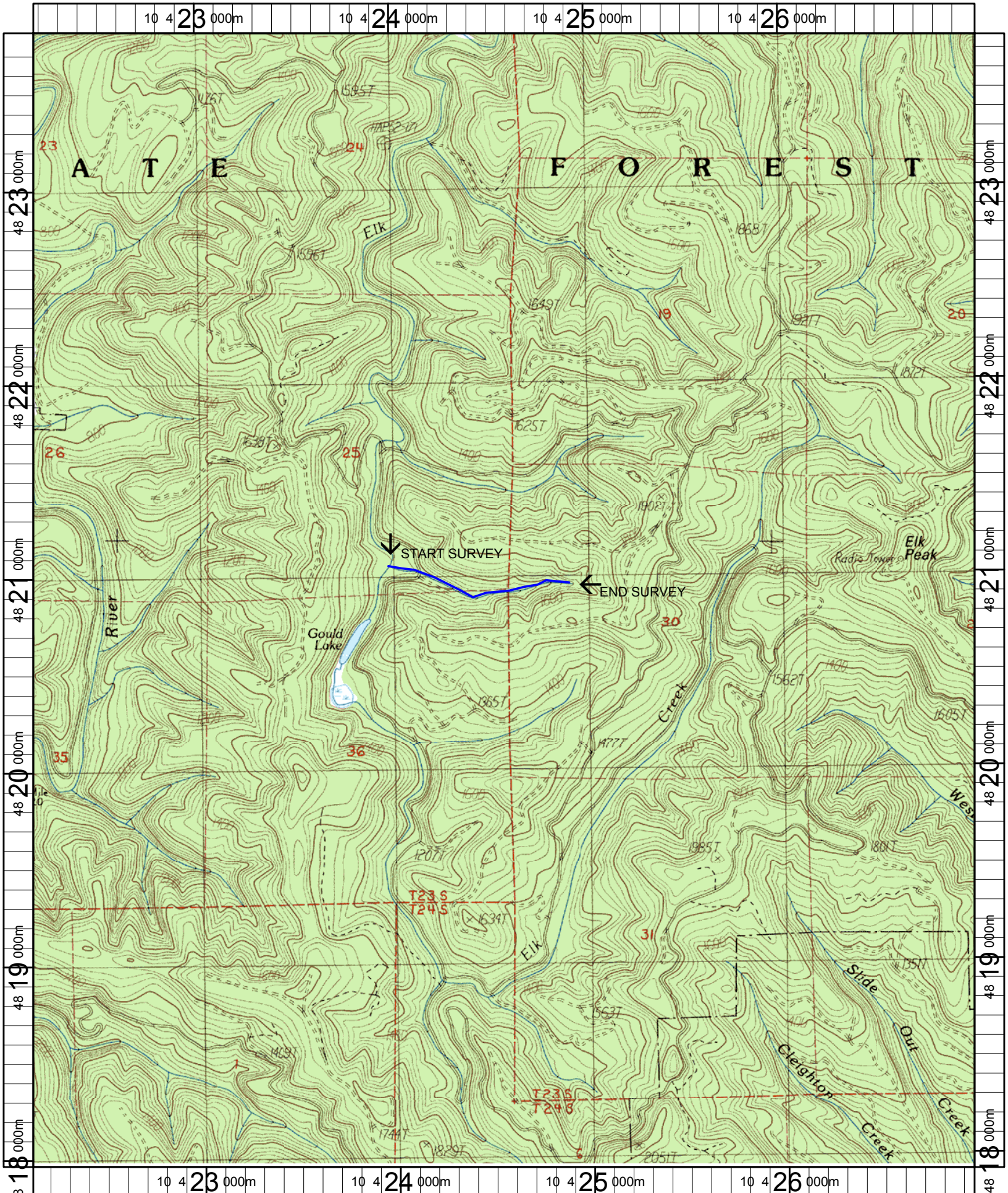
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	8	12.9	12.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	1.6	1.6
Pool frequency (channel widths/pool):	27.2		
Residual pool depth (avg):	0.33		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **284** ELK CREEK TRIBUTARY PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	RI	00	60		REDD	
6	SL	00	81		H = .2	
8	LP	00	108.2	BV		
10	RI	00	177.1		TERRACE HAS 2 PERCENT SLOPE	
11	LP	00	182	BV		
12	RI	00	188.2	/SS, BV		
13	PP	00	192.1	BV		
14	CB	00	197.6	PA	0.15 M STEP TO CULVERT	
15	CC	00	208.6	CC	1.0 M x 1.0 M	
16	DU	00	212.3		ACW = 2.4	
22	SL	00	281.8		H = 0.25	
26	SL	00	365.3		H = 0.3	
29	SL	00	429.6		H = 0.5	
35	CB	00	618.4	LI/LA		



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

Location: 10 424563 E 4820869 N
 Caption: ELK CREEK TRIBUTARY RESTORATION SITE - MILLICOMA BASIN