

**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: July 1, 2005
SURVEY CREW: Kevin Cellura, Eric Himmelreich
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 0.5 km²
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Elk Creek Tributary habitat survey extended 595 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 10.5 (range: 7.5-20.0). Land use for the reach was young (3-15 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 5.2 percent. Dry channel units (86%) dominated stream habitat. Gravel (47%) and cobble (28%) dominated stream substrate. Wood volume was very low at 6.7 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

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	10.5	VWI Range:	7.5 - 20

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	595	1,130	21
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: 1.9	Width: 2.8	4.2 (2.5 - 8.2)	4.5 (2.6 - 8.4)
Depth: 0.06	Height: 0.4	0.8 (0.7 - 0.9)	1.7 (1 - 2.35)

W:D ratio: 6.6
 Stream Flow Type: DR
 Average Unit Gradient: 5.2%
 Water temperature (°C): 10.3 - 10.3

Entrenchment (ACW:FPW ratio): 1.5
 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	MT
Riparian Vegetation:	D15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	2%	Reach avg: 91%
Undercut Banks:	6%	Range: 72 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	48	8.1
Volume (m ³):	40	6.7
Key pieces (>=12m x 0.60m):	1	0.2

OREGON DEPT OF FISH AND WILDLIFE

ELK CREEK TRIB PRE-TX (3-MS, 284)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/1/2005

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	1	12	2.3	0.02	28	20	0	10	30	30	30	0
CULVERT CROSSING	1	11	2.1	0.00	23	0	0	10	40	30	20	0
DRY UNIT	18	401	2.4	0.00	931	128	1	9	54	23	12	1
POOL-LATERAL SCOUR	3	14	1.1	0.43	16	1	3	13	23	37	0	23
POOL-PLUNGE	1	2	2.0	0.30	4	2	0	25	25	25	25	0
PUDDLED UNIT	3	17	1.6	0.08	36	10	2	10	47	33	8	0
RAPID/BOULDERS	2	51	0.8	0.03	38	2	0	20	50	25	5	0
RIFFLE	5	87	0.8	0.04	53	1	0	9	44	35	3	9
Total:	34	595	1.9	0.06	1,130	164	Avg: 1	11	47	28	10	4

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	4	16	1.3	0.40	20	1.78%	3	14.9	
Glides	0	0			0	0.00%	0	0.0	
Riffles	5	87	0.8	0.04	53	4.72%	1	1.9	
Rapids	2	51	0.8	0.03	38	3.38%	2	5.2	
Cascades	1	12	2.3	0.02	28	2.48%	20	71.3	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	21	418	2.3	0.01	967	85.62%	138	14.3	
Culverts	1	11	2.1	0.00	23	2.01%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	4	6.7	6.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	53.9		
Residual pool depth (avg):	0.37		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

ELK CREEK TRIB PRE-TX
GCG: 3-MS SITE ID: 284

Survey Date 7/1/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	833
Total conifers/1000 ft	264
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	20

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.3	0.0	0.0	1.3	2.0	2.0	2.3	3.3
15-30cm	0.0	3.7	0.0	2.3	0.3	1.0	0.3	7.0
30-50cm	0.0	1.0	0.0	0.7	0.7	1.7	0.7	3.3
50-90cm	0.0	0.0	0.3	0.0	0.3	0.0	0.7	0.0
>90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
Total/100m2	0.3	4.7	0.3	4.3	3.7	4.7	1.4	4.6

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	91		87		81	
Shrub cover	19		18		21	
Grass/forb cover	65		63		71	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		33		100	
High terrace	83		67		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	6		15		62	

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	833
Total conifers/1000 ft	264
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	20

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	2.3	3.3
15-30cm	0.3	7.0
30-50cm	0.7	3.3
50-90cm	0.7	0.0
>90cm	0.3	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

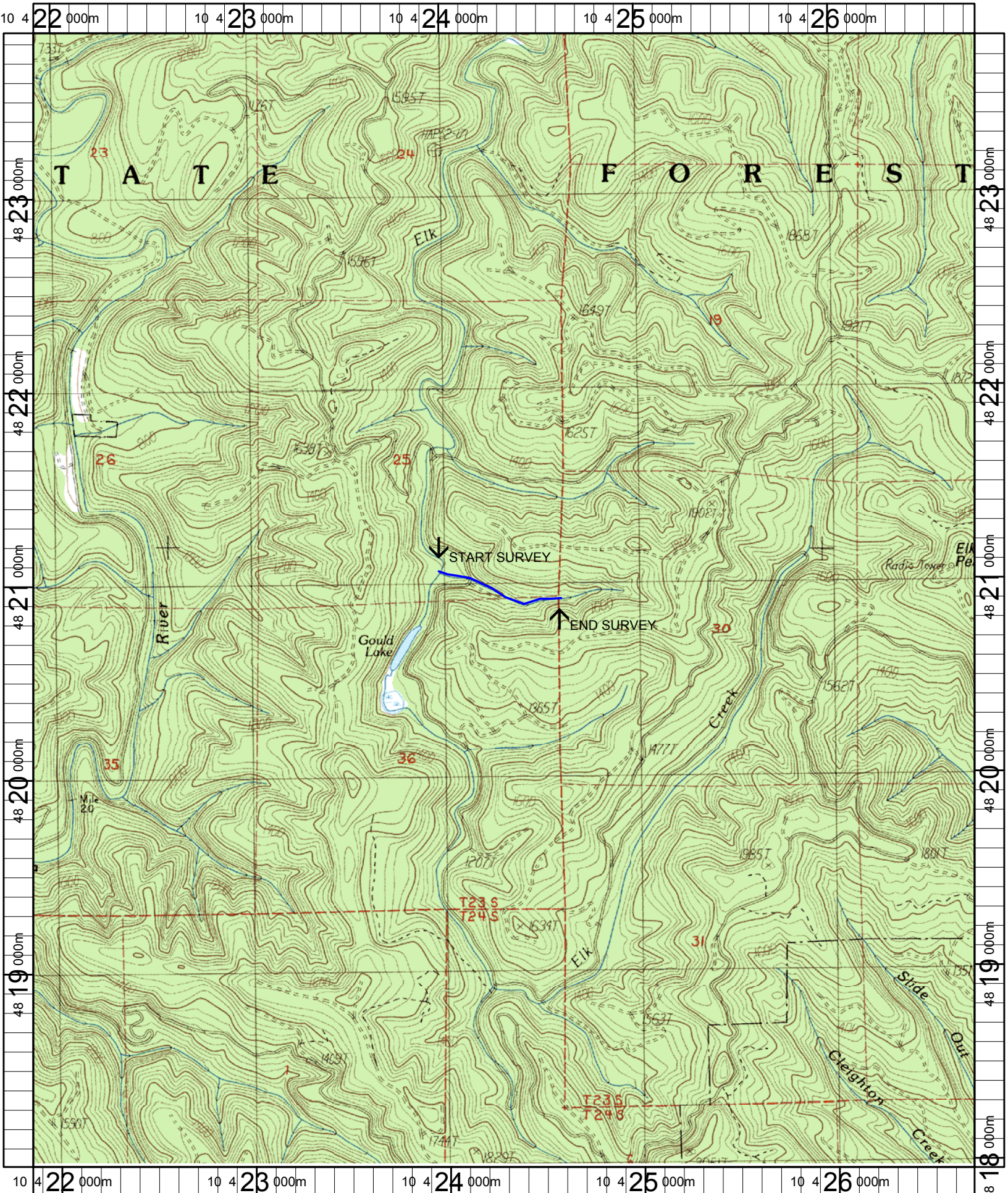
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
11	LF	1	HS	35	90	30	60	Conifer	1						424062, 4821114
								Hardwood		2					
11	LF	2	HS	20	85	10	85	Conifer							
								Hardwood							
11	LF	3	HS	20	35	20	75	Conifer	6						
								Hardwood							
11	RT	1	HT	0	90	35	60	Conifer							
								Hardwood		1	2				
11	RT	2	HT	0	90	60	30	Conifer							
								Hardwood		1					
11	RT	3	HS	70	90	40	50	Conifer		1					
								Hardwood			3				
18	RT	3	HS	50	90	20	70	Conifer			2				
								Hardwood							
18	LF	2	HS	70	90	20	70	Conifer				1			
								Hardwood	1						
18	LF	3	HS	80	95	20	70	Conifer				1	1		
								Hardwood		1	1				
18	RT	1	HT	0	95	0	60	Conifer							
								Hardwood		4					
18	RT	2	HT	0	85	0	50	Conifer							
								Hardwood	2	2					
18	LF	1	HT	0	95	10	70	Conifer							424165, 4821023
								Hardwood		3					
24	LF	2	HT	0	85	10	80	Conifer							
								Hardwood			2				
24	LF	3	HS	80	85	20	70	Conifer							
								Hardwood	4	1	1				
24	RT	1	HT	0	90	30	60	Conifer							
								Hardwood		1	1				
24	RT	2	HT	0	85	10	60	Conifer							OLD OVERGROWN ROAD
								Hardwood	1	4					
24	RT	3	HS	70	90	5	90	Conifer							
								Hardwood	2	1					
24	LF	1	HT	0	85	10	80	Conifer							424284, 4820939
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
4	RI	00	60.7	WL		ELK TRAIL
5	LP	00	67.4			BEDROCK = HARDPAN
6	RI	00	85.8			BEDROCK = HARDPAN
7	LP	00	89.3			BEDROCK = HARDPAN
8	RI	00	102.9	WL		ELK TRAIL, BEDROCK = HAR
9	LP	00	106.7	DJ		BEDROCK = HARDPAN
13	PP	00	186.9			RSN
15	CC	00	203	CC	DRY, CULV IS 2.05 M DIA	DRY, UNDER THE 9000 LINE
21	DU	00	353	WL		ELK TRAIL
22	PD	00	356.5	WL	ACW = 1.4 M	ELK TRAIL
27	PD	00	438.7		ACW = 3.2 M	
33	DU	00	569.9	SS/		



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

Location: 10 424304 E 4820906 N
 Caption: ELK CREEK TRIBUTARY RESTORATION SITE - MILLICOMA BASIN