

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

STREAM: Elk Creek (MS-285)
BASIN: Millicoma River
SURVEY TYPE: Post-Tx
DATE: March 14, 2006
SURVEY CREW: Scott Venables, Seth Ring
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 17.6 km³
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Elk Creek habitat survey extended 2,168 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 3.2 (range: 1.5-6.4). Land use for the reach was mature (50-90 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 0.3 percent. Scour pools (78%) dominated stream habitat. Gravel (47%) dominated stream substrate. Wood volume was moderate at 23.9 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-R11W-S25NE

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	3.2	VWI Range:	1.5 - 6.4

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	2,168	15,755	0
Secondary Channel	73	103	2
Off-Channel Units	278	544	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 8	<u>First Terrace</u> n = 8
Width: 6.1	Width: 13.2	24.1 (13.7 - 39.4)	29.9 (15.4 - 49.5)
Depth: 0.68	Height: 0.9	1.8 (1.7 - 1.9)	2.4 (2 - 3.4)

W:D ratio: 14.9
 Stream Flow Type: LF
 Average Unit Gradient: 0.3%
 Water temperature (°C): 4.5 - 4.5

Entrenchment (ACW:FPW ratio): 1.8
 Habitat Units/100m (total channel length): 4.4
 Habitat Units/100m (primary channel length): 5.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	YT
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):	414	19.1
Volume (m ³):	517	23.9
Key pieces (>=12m x 0.60m):	41	1.9

OREGON DEPT OF FISH AND WILDLIFE

ELK CREEK POST-TX (3-MS, 285)

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

3/14/2006

REACH 1		T23S-R11W-S25NE					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	1	20	0.7	0.02	14	0	10	25	30	0	0	35
CASCADE/BOULDERS	5	84	1.4	0.05	133	0	2	13	64	10	4	7
POOL-ALCOVE	3	21	2.8	0.45	62	0	67	3	25	5	0	0
POOL-BACKWATER	3	20	3.7	0.43	83	0	37	12	18	0	0	33
POOL-ISOLATED	3	36	1.7	0.57	66	0	13	10	42	2	0	33
POOL-LATERAL SCOUR	69	1,768	7.3	0.93	12,792	0	8	24	48	11	3	6
PUDDLED UNIT	2	73	1.3	0.25	103	0	50	0	0	0	0	50
RAPID/BEDROCK	1	7	0.3	0.05	2	0	21	26	53	0	0	0
RAPID/BOULDERS	2	31	4.1	0.16	152	0	0	3	43	31	23	0
RIFFLE	20	460	6.5	0.28	2,995	0	2	6	55	32	2	4
STEP/BEDROCK	1	0	0.3	0.05	0	0	0	5	85	10	0	0
Total:	110	2,519	6.1	0.68	16,402	0	Avg: 10	18	47	14	3	8

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	9	77	2.7	0.48	211	1.29%	0	0.0	
Scour Pools	69	1,768	7.3	0.93	12,792	77.99%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	20	460	6.5	0.28	2,995	18.26%	0	0.0	
Rapids	3	38	2.8	0.13	154	0.94%	0	0.0	
Cascades	6	104	1.3	0.04	147	0.89%	0	0.0	
Step/Falls	1	0	0.3	0.05	0	0.00%	0	0.0	
Dry	2	73	1.3	0.25	103	0.63%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	<u>Total of all Channel Lengths # / Km</u>	<u>Primary Channel Length # / Km</u>
All Pools:	78	31.0	36.0
Pools >=1m deep:	25	9.9	11.5
Complex pools (LWD pieces>=3):	47	18.7	21.7
Pool frequency (channel widths/pool):	2.5		
Residual pool depth (avg):	0.67		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **3-MS** SITE ID: **285** ELK CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	15.6		T = 4.5 AT 8:40, STLHD REDD	
2	LP	01	36.3	HS, TJ/	11 LOGS	
3	CB	11	36.3		ACW = 2.45, T = 5.0	
4	SR	11	36.3	CE	H = 1.05	
5	RI	00	68.1		3 STEELHEAD REDDS	
8	LP	01	161.1	TJ/	ONE STEELHEAD REDD	
9	RB	11	161.1		ACW = 2.5, T = 4.0	
10	RI	00	182.4	/SS		
11	LP	01	228	/TJ	HARDPAN	
12	CR	11	228		ACW = 1.6, T= 4.5	
13	LP	00	240.6	HS		
16	LP	00	374.2	CS/		
17	LP	00	394.6	HS, SS/		
21	LP	00	481.7	HS	6 LOGS	
22	LP	00	505.7		HARDPAN	
26	PD	02	600.3		ACW = 2.7	
28	LP	00	635.5		4 STEELHEAD REDDS	
31	LP	01	709.9	/TJ		
32	CB	11	709.9		ACW = 1.0	
33	RI	01	737	/TJ, HS	6 LOGS, T = 6.0 AT 11:15	
34	CB	11	737		ACW = 1.2, T = 6.0	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **3-MS** SITE ID: **285** ELK CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
36	LP	01	771.9	/SS	ONE STEELHEAD REDD	
38	RI	10	771.9	TJ		
39	CB	11	771.9		ACW = 2.4, T = 6.0	
40	LP	00	780.9	HS	4 LOGS	
41	LP	00	799.2	HS		
44	LP	01	907.2		ONE STEELHEAD REDD	
46	LP	00	926.7	HS	7 LOGS	
52	LP	00	1014.5	HS	5 LOGS, 2 STEELHEAD REDDS	
54	LP	00	1057.2	HS	4 LOGS	
55	RI	00	1085.1	HS	6 LOGS	
57	LP	01	1140.8	TJ/		
58	CB	11	1140.8	CS/CS	ACW = 5.8, T = 6.0	
59	RI	11	1140.8		NEXT UNIT ON TRIB IS CULVERT	
60	LP	00	1156.8	HS	3 LOGS	
62	LP	00	1207.3		STEELHEAD REDD	
63	LP	00	1241.6		STEELHEAD REDD	
64	LP	00	1281.1	HS	ONE LOG, 3 INCH FISH	
65	RI	00	1291.2	BC		
66	LP	00	1308.7		OREGON PLAN SURVEY SIGN	
67	RI	00	1326.6	HS		
68	LP	00	1350.2	HS, /SS	5 LOGS	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **3-MS** SITE ID: **285** ELK CREEK POST-TX

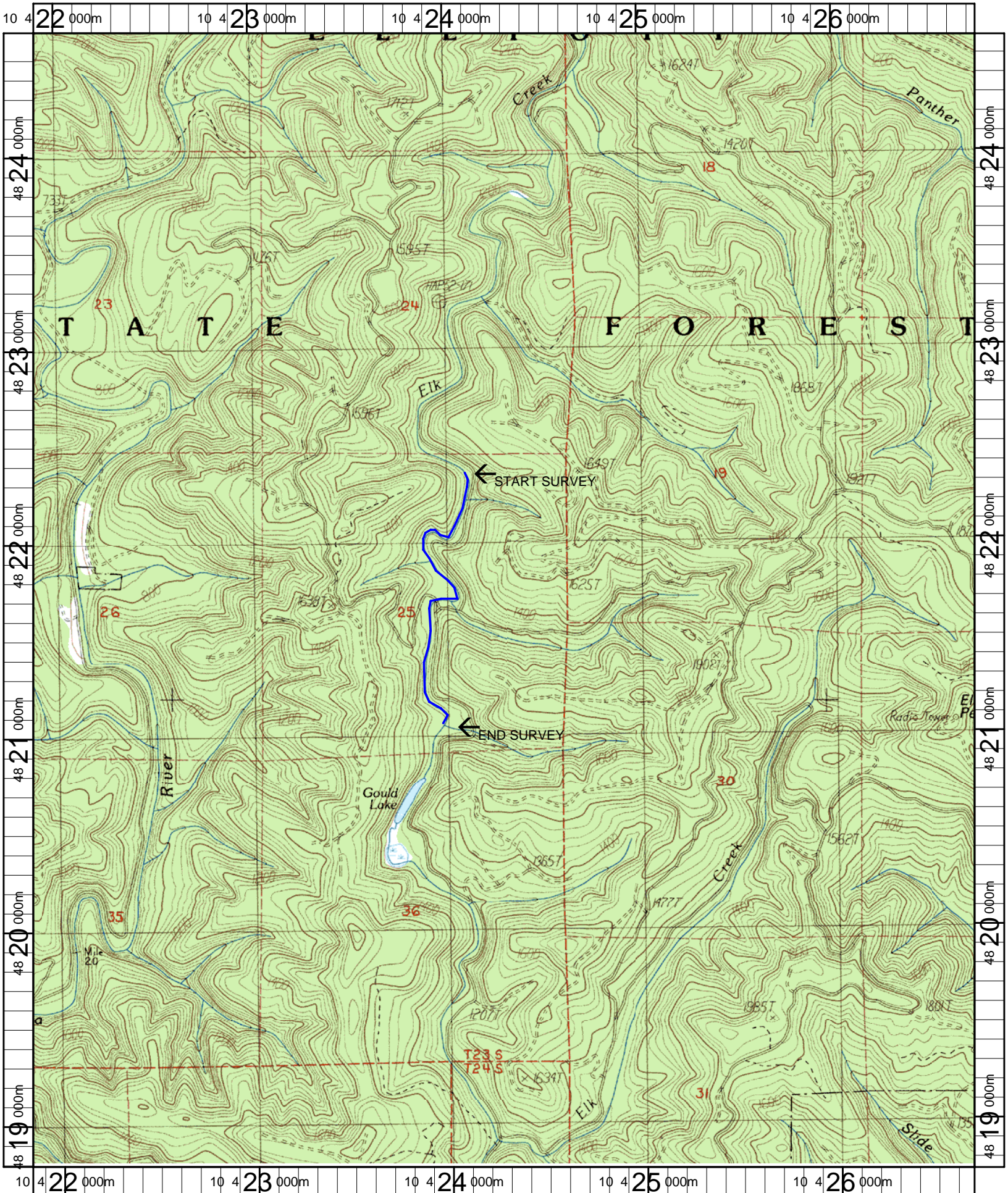
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
69	LP	00	1371.2	HS	7 LOGS, STEELHEAD REDD	
70	LP	00	1414.5	/SS, HS	5 LOGS	
71	LP	00	1433.1	HS		
73	LP	00	1489.9	HS	6 LOGS	
74	RI	01	1516	HS		
77	PD	02	1529.2		ACW = 2.2	
79	LP	00	1554.4	HS	9 LOGS	
81	LP	00	1592		HARDPAN	
82	LP	00	1609.6		HARDPAN	
83	LP	00	1629.9	HS	5 LOGS	
84	LP	01	1649.1	SS/, HS	2 LOGS	
87	LP	01	1714.5	HS, TJ/	SS/, STEELHEAD REDD	
88	RR	11	1714.5		ACW = 0.5, T = 6.0	
89	LP	00	1734.1	HS	4 LOGS	
91	LP	00	1772.7		HARDPAN	
94	LP	00	1846.8	HS	4 LOGS	
95	LP	01	1885.9	HS, /TJ		
96	RI	11	1885.9		ACW = 0.5, T = 6.0 AT 4:30	
98	LP	00	1932.5	HS		
99	LP	00	1960	/SS		
104	LP	00	2067.7	HS	7 LOGS	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 3-MS SITE ID: 285 ELK CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
105	LP	00	2083.3	HS		
106	LP	00	2106.1		HARDPAN	
107	LP	00	2129	SS/	HARDPAN	
108	LP	00	2150.5	SS/		
109	LP	01	2167.5	TJ/	HARDPAN	
110	RI	11	2167.5		ACW = 3.1, T = 6.0 AT 5:25	



Name: ELK PEAK
 Date: 5/22/2006
 Scale: 1 inch equals 2000 feet

Location: 10 424289 E 4821693 N
 Caption: ELK CREEK #285 RESTORATION SITE - MILLICOMA BASIN