

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

STREAM: Elk Creek (MS-292)
BASIN: Coquille River
SURVEY TYPE: Reference
DATE: August 25, 2005
SURVEY CREW: Eric Himmelreich, Kevin Cellura
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 39.0 km²
USGS MAPS: Remote
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Elk Creek habitat survey extended 562 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 7.4 (range: 5.0-10.0). Land use for the reach was second growth (15-30 cm dbh) trees and timber harvest. The average unit gradient was 0.4 percent. Scour pools (73%) dominated stream habitat. Bedrock (31%) and gravel (29%) dominated stream substrate. Wood volume was very low at 4.0 m³/100m.

COMMENTS:

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

REACH 1

T28S-R11W-S27NE

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	7.4	VWI Range:	5 - 10

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	562	3,630	0
Secondary Channel	0	0	0
Off-Channel Units	37	83	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 7.5	Width: 11.1	14.8 (11.8 - 21.1)	16.6 (12.9 - 26.1)
Depth: 0.44	Height: 0.8	1.6 (1.2 - 1.8)	3.3 (1.7 - 6)

W:D ratio: 14.1

Entrenchment (ACW:FPW ratio): 1.4

Stream Flow Type: LF

Habitat Units/100m (total channel length): 4.8

Average Unit Gradient: 0.4%

Habitat Units/100m (primary channel length): 5.2

Water temperature (°C): 13.5 - 13.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
Riparian Vegetation:	M15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	23%	Reach avg: 86%
Undercut Banks:	23%	Range: 67 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	30	5.3
Volume (m ³):	23	4.0
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

ELK CREEK REFERENCE (3-MS, 292)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

8/25/2005

REACH 1		T28S-R11W-S27NE					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	14	8.8	0.10	126	0	0	5	10	5	0	80
POOL-BACKWATER	1	4	2.8	0.22	11	0	40	50	10	0	0	0
POOL-BEAVER DAM	1	51	5.5	1.02	281	0	15	30	50	5	0	0
POOL-DAMMED	1	24	7.4	0.40	178	2	10	35	35	10	5	5
POOL-ISOLATED	1	16	3.0	0.45	49	0	20	50	30	0	0	0
POOL-LATERAL SCOUR	8	379	6.4	0.88	2,303	24	12	23	24	5	2	35
POOL-PLUNGE	3	43	8.5	0.78	392	0	5	13	17	3	2	60
PUDDLED UNIT	1	6	1.8	0.03	11	0	0	10	40	10	0	40
RIFFLE	2	22	2.3	0.06	60	3	0	23	60	3	0	15
STEP/BEAVER DAM	1	4	2.2	0.07	8	0	0	5	85	10	0	0
STEP/BEDROCK	2	5	5.4	0.11	20	0	0	3	8	3	0	88
STEP/COBBLE	2	13	2.6	0.10	30	3	0	3	93	5	0	0
STEP/STRUCTURE	5	17	17.7	0.09	245	207	0	2	4	4	70	20
Total:	29	599	7.5	0.44	3,713	239	Avg: 7	16	29	4	13	31

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	4	95	4.7	0.52	519	13.96%	2	0.4	
Scour Pools	11	422	6.9	0.85	2,695	72.58%	24	0.9	
Glides	0	0			0	0.00%	0	0.0	
Riffles	2	22	2.3	0.06	60	1.62%	3	5.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	1	14	8.8	0.10	126	3.39%	0	0.0	
Step/Falls	10	39	10.6	0.10	303	8.16%	210	69.4	
Dry	1	6	1.8	0.03	11	0.29%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths	
		# / Km	Primary Channel Length # / Km
All Pools:	15	25.0	26.7
Pools >=1m deep:	4	6.7	7.1
Complex pools (LWD pieces>=3):	4	6.7	7.1
Pool frequency (channel widths/pool):	3.6		
Residual pool depth (avg):	0.68		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

ELK CREEK REFERENCE
GCG: 3-MS SITE ID: 292

Survey Date 8/25/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	1483
Total conifers/1000 ft	183
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	0

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	0.7	0.0	1.7	0.7	5.3	1.0	7.7
15-30cm	0.3	0.7	1.3	1.0	0.0	7.7	1.7	9.3
30-50cm	0.0	1.7	0.0	2.7	0.0	2.3	0.0	6.7
50-90cm	0.0	0.3	0.0	0.0	0.3	0.3	0.3	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.7	3.3	1.3	5.3	1.0	15.7	1.0	8.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	83		88		92	
Shrub cover	20		12		9	
Grass/forb cover	61		58		53	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	83		17		17	
High terrace	17		83		83	
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 (%)	65		5		2	

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	1483
Total conifers/1000 ft	183
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	0

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	1.0	7.7
15-30cm	1.7	9.3
30-50cm	0.0	6.7
50-90cm	0.3	0.7
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

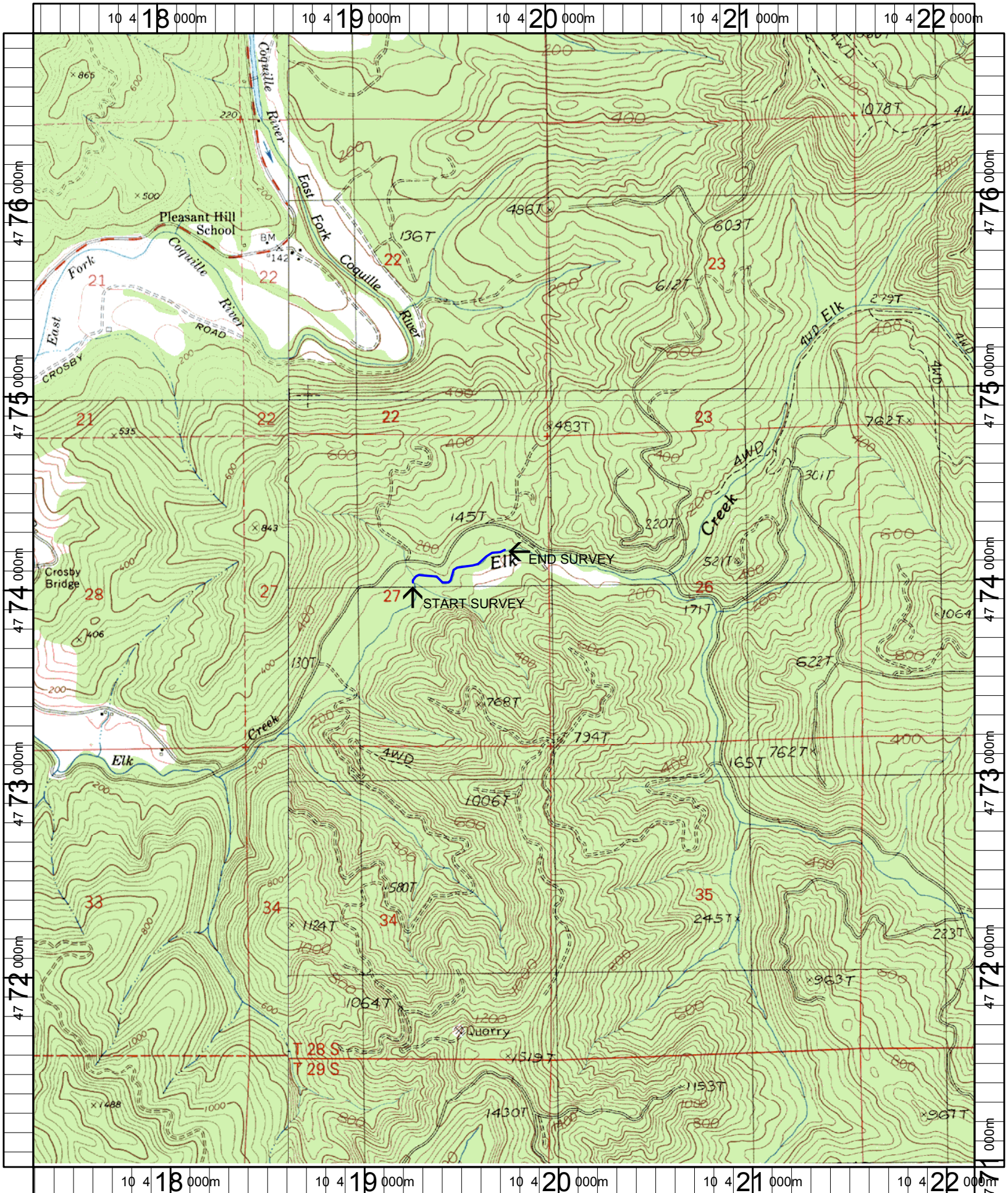
Unit	Side	Zone	Surface	Slope	Cover (percent)			Diameter class (cm)					Notes
					Canopy	Shrub	Grass	3-15	15-30	30-50	50-90	>90	
11	LF	1	HS	45	75	35	50	Conifer Hardwood					419426, 4774001
11	LF	2	HT	0	85	10	70	Conifer Hardwood					
11	LF	3	HT	0	85	0	40	Conifer Hardwood					
11	RT	1	HS	100	90	0	80	2	7				
11	RT	2	HT	0	90	0	70	Conifer Hardwood					
11	RT	3	HT	0	90	0	35	2	1	1			
19	LF	3	HT	0	90	0	50	1	6	4			
19	RT	3	HT	0	95	50	40	Conifer Hardwood					
19	RT	1	HT	0	45	70	10	1	2	2			419483, 4774071
19	LF	2	HT	0	85	0	60	1					
19	LF	1	HS	90	95	10	80	Conifer Hardwood					
19	RT	2	HT	0	80	40	40	Conifer Hardwood					
26	LF	1	HS	60	95	5	70	Conifer Hardwood					419574, 4774111
26	LF	2	HS	30	90	10	50	2	2	7			
26	LF	3	HS	10	95	0	95	Conifer Hardwood					
26	RT	1	HS	95	95	0	75	12	8	1			
26	RT	2	HT	0	95	10	60	1	1				
26	RT	2	HT	0	95	10	60	Conifer Hardwood					
26	RT	3	HT	0	95	5	60	2					

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **292** ELK CREEK REFERENCE

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	29.2		START 419284, 4774022	
2	PP	01	41		TJ/	RSN
3	RI	11	41		TRIB 1, ACW = 1.9 M	
4	SR	11	41		TRIB TEMP = 13 C	
5	CR	00	55.3		MAIN CHANNEL TEMP = 1	
6	PP	00	76.5		419317, 4774012	
7	SR	00	78.1		H = .3 M	
9	SS	00	111.4		BLDR WEIR DIVIDING TW	BLDR WEIR DIVIDING POOL
10	LP	00	168.8	BV		
11	SS	00	170.3		BLDR WEIR	BLDR WEIR DIVINING POOL
12	LP	00	216.3			CRAYFISH
14	PD	11	231.1		TRIB 2 T = 13.8 C	
15	PP	00	241.5		MAIN CHANNEL T = 13.8	
16	SS	00	242.9		BLDR WEIR	BLDR WEIR
20	LP	01	328.8	SS/		FRY, RSN
24	SS	00	350.1		H = .2 M, BLDR WEIR	BLDR WEIR
27	LP	00	507.2	BV		
28	SD	00	510.9	BD		
29	BP	00	561.9	BV	419701, 4774169	



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

Location: 10 419752 E 4773921 N
 Caption: ELK CREEK REFERENCE SITE - COQUILLE BASIN