

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

STREAM: Elk Creek (MS-291)
BASIN: Coquille River
SURVEY TYPE: Post-Tx
DATE: July 20, 2005
SURVEY CREW: Kevin Cellura, Eric Himmelreich
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 749 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 9.3 (range: 8.2-10.0). Land use for the reach was second growth (15-30 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 0.5 percent. Scour pools (47%), riffles (21%) and beaver pools (20%) dominated stream habitat. Bedrock (32%) and sand (26%) dominated stream substrate. Wood volume was very high at 47.2 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

T28S-R11W-S27SW

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	9.3	VWI Range:	8.2 - 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	749	5,682	0
Secondary Channel	0	0	0
Off-Channel Units	9	15	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.9	Width: 10.2	12.2 (10.6 - 15.4)	14.1 (11.2 - 15.6)
Depth: 0.43	Height: 0.4	0.8 (0.8 - 1)	2.0 (1 - 4.3)

W:D ratio: 24.6

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: MF

Habitat Units/100m (total channel length): 3.4

Average Unit Gradient: 0.5%

Habitat Units/100m (primary channel length): 3.5

Water temperature (°C): 15.0 - 15.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	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:	13%	Reach avg: 89%
Undercut Banks:	4%	Range: 67 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	194	25.9
Volume (m ³):	354	47.2
Key pieces (>=12m x 0.60m):	35	4.7

OREGON DEPT OF FISH AND WILDLIFE

ELK CREEK POST-TX (3-MS, 291)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/20/2005

REACH 1		T28S-R11W-S27SW					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
GLIDE	1	54	3.8	0.12	206	0	20	80	0	0	0	0
POOL-BEAVER DAM	1	113	10.0	1.20	1,129	3	30	60	10	0	0	0
POOL-ISOLATED	2	9	1.6	0.27	15	0	38	25	38	0	0	0
POOL-LATERAL SCOUR	5	177	6.6	0.79	1,288	2	29	40	27	0	0	4
POOL-STRAIGHT SCOUR	5	153	8.5	0.74	1,413	65	6	22	12	1	5	54
RAPID/BEDROCK	2	37	10.0	0.15	375	40	0	8	3	0	10	80
RIFFLE	7	206	5.8	0.14	1,222	34	6	16	25	1	2	50
STEP/BEAVER DAM	1	1	5.0	0.17	5	10	30	30	0	0	0	40
STEP/COBBLE	1	6	3.8	0.10	22	0	0	10	80	10	0	0
STEP/STRUCTURE	1	1	16.6	0.20	22	35	0	10	5	0	85	0
Total:	26	758	6.9	0.43	5,697	189	Avg: 14	26	21	1	6	32

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	122	4.4	0.58	1,144	20.08%	3	0.3	
Scour Pools	10	330	7.6	0.77	2,700	47.40%	67	2.5	
Glides	1	54	3.8	0.12	206	3.62%	0	0.0	
Riffles	7	206	5.8	0.14	1,222	21.45%	34	2.8	
Rapids	2	37	10.0	0.15	375	6.59%	40	10.7	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	8	8.5	0.16	49	0.86%	45	91.8	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	13	17.1	17.4
Pools >=1m deep:	3	4.0	4.0
Complex pools (LWD pieces>=3):	9	11.9	12.0
Pool frequency (channel widths/pool):	5.7		
Residual pool depth (avg):	0.68		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

ELK CREEK POST-TX
GCG: 3-MS SITE ID: 291

Survey Date 7/20/2005

RIPARIAN ZONE

Report Date: 4/26/2006

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	427
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	41
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	0.0	0.3	0.0	0.3	0.0	0.7	0.0	1.3
15-30cm	0.0	0.7	0.3	1.3	0.0	1.7	0.3	3.7
30-50cm	0.7	1.0	0.7	0.0	0.0	0.7	1.3	1.7
50-90cm	0.3	0.0	0.3	0.3	0.0	0.0	0.7	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	2.0	1.3	2.0	0.0	3.0	0.8	2.3

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	68		73		62	
Shrub cover	13		16		17	
Grass/forb cover	56		62		58	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	83		33		0	
High terrace	17		67		100	
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 (%)	67		3		0	

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	427
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	41
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	0.0	1.3
15-30cm	0.3	3.7
30-50cm	1.3	1.7
50-90cm	0.7	0.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

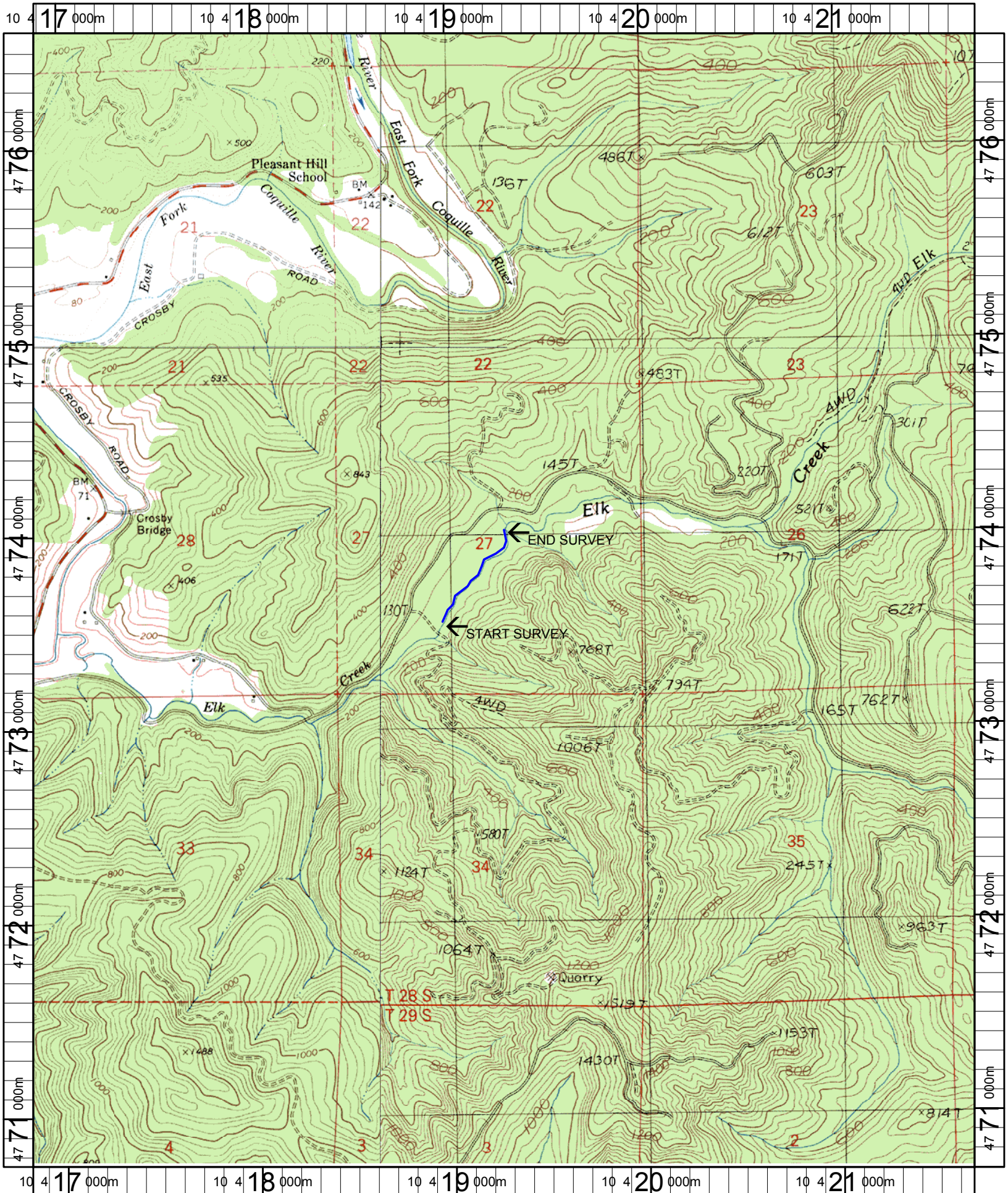
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
7	RT	2	HS	15	90	10	75	Conifer							
								Hardwood		1		1			
7	LF	1	HS	90	90	0	30	Conifer							
								Hardwood		2					
7	LF	2	HT	0	90	0	70	Conifer							
								Hardwood	1	1					
7	RT	1	HS	40	90	10	80	Conifer							
								Hardwood	1		1				
7	RT	3	HT	0	95	0	85	Conifer							
								Hardwood		2	1				
7	LF	3	HT	0	90	0	75	Conifer							
								Hardwood		1	1				
16	LF	1	HS	90	65	40	40	Conifer					1	0419187, 4773805	
								Hardwood							
16	LF	2	HS	5	85	30	50	Conifer		1	1	1			
								Hardwood							
16	LF	3	HT	0	90	20	75	Conifer							
								Hardwood	1						
16	RT	1	HS	30	90	5	80	Conifer							
								Hardwood				1			
16	RT	2	HT	0	15	30	60	Conifer							
								Hardwood		1					
16	RT	3	HT	0	0	40	40	Conifer							CLEAR CUT
								Hardwood							
22	RT	1	HS	150	50	20	30	Conifer				2			
								Hardwood							
22	RT	2	HT	0	95	20	40	Conifer							
								Hardwood							
22	RT	3	HT	0	95	20	40	Conifer							
								Hardwood							
22	LF	3	HT	0	0	20	30	Conifer							
								Hardwood	1	2					
22	LF	1	HT	0	25	0	75	Conifer							0419351, 4773955
								Hardwood				1			
22	LF	2	HT	0	65	5	75	Conifer					1		
								Hardwood		1					

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **291** ELK CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	49.7			T = 15 C
2	RI	00	76.2	HS		PLACED BOULDERS
3	SP	00	87.6	HS		
4	SP	00	129.5	HS	ANIMAL TRACKS	
5	SP	00	151.5		/SS	
6	RI	00	194.3	HS		
9	LP	00	233.5			SS/
11	LP	00	286.8	HS		
13	SP	00	366.5	HS	/SS	
14	RR	00	384	HS		
15	SD	00	385	BD	BV, H = .4 M	
16	BP	00	497.9	HS, BV	/SS	
17	RI	00	536.5	/SS		
20	IP	10	580.7		RSN, FRY	
21	LP	00	634.9	HS		
24	RI	00	709.5		RSN	
26	RI	00	748.9			0419286, 4774028



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

Location: 10 419276 E 4773652 N
 Caption: ELK CREEK RESTORATION SITE - COQUILLE BASIN