

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 13, 2006
SURVEY CREW: Lisa Biggs, Peter Cole
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 781 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 7.8 (range: 1.0-10.0). Land use for the reach was mature (50-90 cm dbh) trees and timber harvest. The average unit gradient was 1.1 percent. Scour pools (64%) dominated stream habitat. Bedrock (35%) and silt (26%) dominated stream substrate. Wood volume was high at 36.6 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-S27SE

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	7.8	VWI Range:	1 - 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	781	5,267	0
Secondary Channel	0	0	0
Off-Channel Units	71	150	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 2
Width: 5.9	Width: 12.0	14.6 (12.8 - 16.7)	18.0 (17.3 - 18.7)
Depth: 0.40	Height: 0.5	1.1 (0.9 - 1.2)	1.5 (1.4 - 1.6)

W:D ratio: 22.8

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: LF

Habitat Units/100m (total channel length): 4.2

Average Unit Gradient: 1.1%

Habitat Units/100m (primary channel length): 4.6

Water temperature (°C): 14.5 - 14.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	TH
Riparian Vegetation:	D30	C30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 83%
Undercut Banks:	3%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	223	28.6
Volume (m ³):	286	36.6
Key pieces (>=12m x 0.60m):	21	2.7

OREGON DEPT OF FISH AND WILDLIFE

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

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

7/13/2006

REACH 1		T28S-R11W-S27SE					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	19	10.0	0.10	189	0	0	5	5	5	0	86
DRY UNIT	1	25	0.9	0.00	23	0	0	0	0	10	10	80
POOL-BACKWATER	5	34	3.3	0.51	108	0	53	16	1	4	0	26
POOL-ISOLATED	3	12	1.6	0.22	19	0	36	17	31	0	0	17
POOL-LATERAL SCOUR	9	472	7.0	0.91	3,319	79	35	21	16	6	4	18
POOL-STRAIGHT SCOUR	1	24	6.9	1.00	166	3	40	0	0	0	10	50
RAPID/BEDROCK	6	111	7.9	0.10	839	47	10	3	3	3	3	78
RIFFLE	5	125	3.7	0.10	486	1	13	50	26	4	0	7
RIFFLE W/ POCKETS	2	24	9.1	0.25	221	48	30	10	5	0	5	50
STEP/BEDROCK	1	2	10.0	0.03	20	0	0	0	5	0	0	95
STEP/BOULDERS	2	4	7.8	0.05	26	23	5	5	5	0	85	0
Total:	36	851	5.9	0.40	5,417	201	Avg: 26	17	12	3	7	35

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	8	46	2.7	0.40	127	2.35%	0	0.0	
Scour Pools	10	496	7.0	0.92	3,485	64.35%	82	2.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	149	5.2	0.14	707	13.05%	49	6.9	
Rapids	6	111	7.9	0.10	839	15.49%	47	5.6	
Cascades	1	19	10.0	0.10	189	3.49%	0	0.0	
Step/Falls	3	6	8.5	0.04	46	0.85%	23	50.0	
Dry	1	25	0.9	0.00	23	0.42%	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:	18	21.1	23.1
Pools >=1m deep:	5	5.9	6.4
Complex pools (LWD pieces>=3):	10	11.7	12.8
Pool frequency (channel widths/pool):	3.9		
Residual pool depth (avg):	0.86		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

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

Survey Date 7/13/2006
Report Date: 3/5/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	1158
Total conifers/1000 ft	203
Total conifers >20" dbh/1000 ft	122
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	0.0	2.7	0.0	1.3	0.0	1.3	0.0	5.3
15-30cm	0.3	3.0	0.0	0.3	0.0	4.7	0.3	8.0
30-50cm	0.3	2.3	0.3	1.3	0.3	1.7	1.0	5.3
50-90cm	0.3	0.0	0.7	0.3	0.7	0.0	1.7	0.3
>90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
Total/100m2	1.0	8.0	1.0	3.3	1.3	7.7	1.1	6.3

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	72	73	71
Shrub cover	10	5	3
Grass/forb cover	52	67	68

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	33	33	33
High terrace	67	67	67
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 (%)	51	8	11

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	1158
Total conifers/1000 ft	203
Total conifers >20" dbh/1000 ft	122
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	0.0	5.3
15-30cm	0.3	8.0
30-50cm	1.0	5.3
50-90cm	1.7	0.3
>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	RT	1	HT	0	80	0	80					1		HT/HS, SLOPES
11	RT	3	HT	0	75	0	80	4		1				HT=0%, FERNS, HT/HS, SLOPES
11	RT	2	HT	0	65	0	90		1					
11	LF	1	HT	20	90	0	10			1	1			HT/HS
11	LF	3	HT	0	75	0	40						1	
11	LF	2	HT	5	85	0	30							
19	LF	1	HS	150	80	5	40				4			MYRTLEWOOD CLUMP
19	LF	2	HT	0	80	10	60	2	4	1				
19	LF	3	HT	0	80	10	40	3						
19	LF	3	HT	0	80	10	40	2		2				
19	RT	1	HT	5	90	15	80							
19	RT	2	HS	20	90	0	90				1			MYRTLEWOOD
19	RT	3	HS	30	90	0	90				13			ALL ONE MYRTLEWOOD CLUMP HS/HT
26	LF	1	HS	130	40	30	40	2			1			
26	RT	3	HS	35	65	0	85	1		3		1		CLEARCUT AT END OF ZONE 3
26	RT	2	HS	20	60	10	80					1		
26	RT	1	HT	0	50	10	60	1						HT/HS
26	LF	2	HT	5	60	10	50			4	3			
26	LF	3	HT	0	40	10	70					1		OLD CLEARCUT AT END OF

Comment Summary

Restoration Monitoring Sites 2006

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

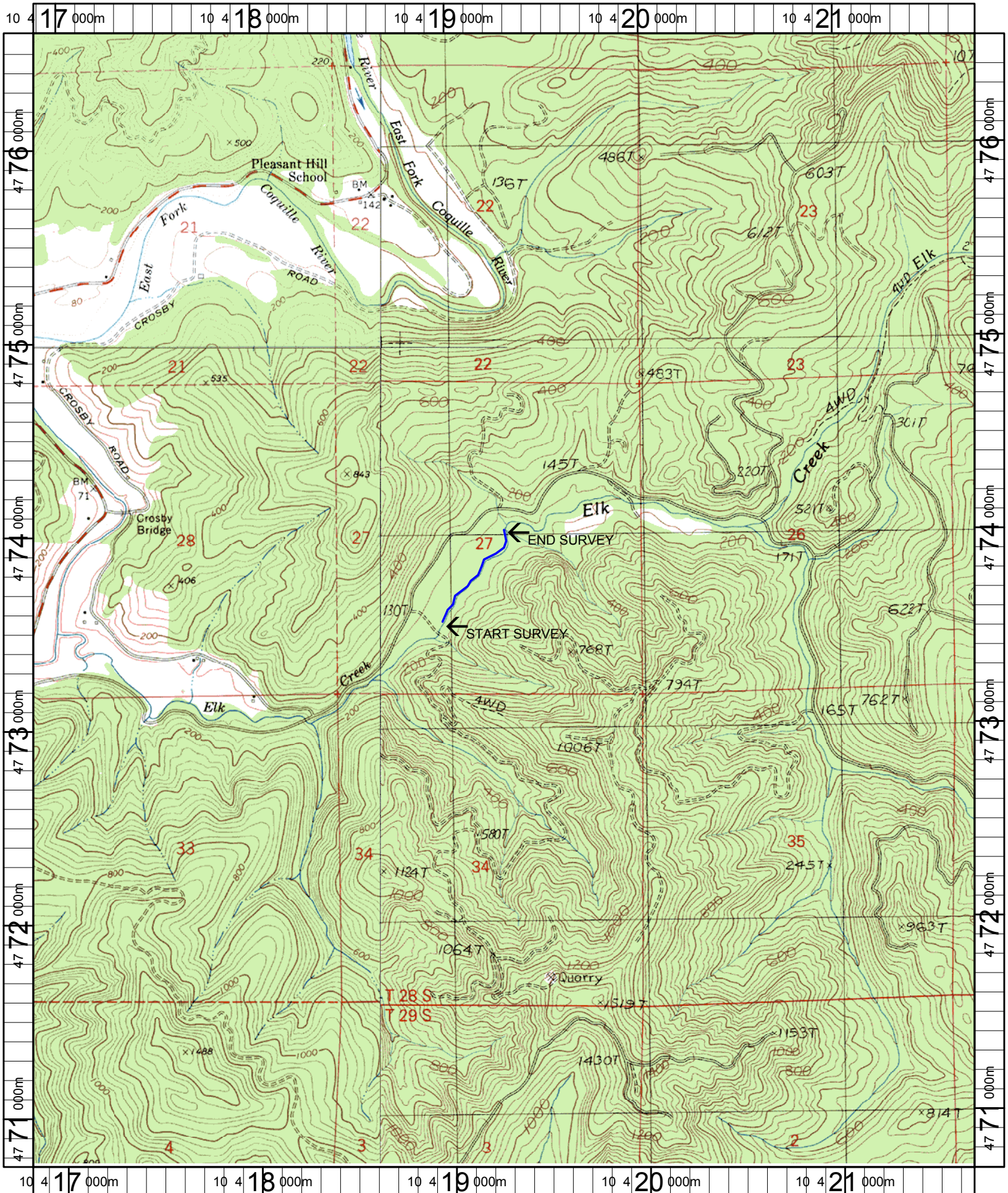
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RR	01	25		T=14.5C AT 9:38AM, 1 RSN	
3	RR	01	50	TJ/	TJ/, 2 RSN	
4	DU	11	50		ACW=0.9M, ACH=0.3M	
5	IP	10	50		9 RSN	
6	RR	00	59.4		TONS OF MISQUITOS	
7	RP	00	69	HS, LI	HS, DJ	BOULDER WEIR + LOGS
8	RP	00	83.2	HS	NATIVE RED/BLACK SNAILS	
9	LP	00	132.6	HS	DJ, HS, 2 RSN	BLDR WEIR & LOGS AT T
10	SB	00	134.6	HS	H=0.30M	
11	SP	01	158.7	HS		
12	BW	10	158.7	HS	CREATED BY HS	LOGS WITH ROOTWAD
13	RR	00	183.7	HS		LOGS WITH ROOTWAD
14	RR	00	198	HS		BOULDERS
15	LP	00	223.6	HS	2 RSN	BOULDER WEIR
16	SB	00	225.1	HS, SS/	H=0.40M, SS/	BOULDER WEIR IN UNIT 1
17	LP	01	296.2	HS	DJ, HS	LOG JAM
18	IP	10	296.2		6 RSN	
19	SR	00	298.2		H=0.50M	
20	CR	01	317.1			SOME DEEP POCKETS
22	LP	01	387.7	HS	HS, /SS, /SS, CRAWDAD	BOULDERS + LOGS
23	BW	10	387.7	HS	2 RSN	

Comment Summary

Restoration Monitoring Sites 2006

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

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
24	RR	00	399.9	HS		CLEARCUT RIGHT HS
25	LP	00	465.5	HS	5 RSN	BOULDER WEIR BROKEN
26	LP	00	494.3	HS	SMALL COBBLE BAR BW LP	EROSION CAUSED BY HIG
29	LP	00	584.9	/SS	/SS, HS,	
31	IP	10	601		T=15.5C AT 12:55PM, 3 RSN	
32	LP	00	669.7	HS, HS	HUGE DJ	POOL RUNS UNDER HS
33	RI	00	694.7		RACCOON SCAT	
35	BW	10	721.3		1 RSN	
36	LP	00	780.7			POOL GOES PAST END SI



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