

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

STREAM: Cougar Creek (MS-286)
BASIN: Millicoma River
SURVEY TYPE: Pre-Tx
DATE: February 1, 2005
SURVEY CREW: Neil Jensen, Jennifer Schmitt
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.3 km²
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Cougar Creek habitat survey extended 1,159 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 3.4 (range: 2.0-5.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 3.6 percent. Riffles (60%) dominated stream habitat. Gravel (40%), sand (26%) and cobble (24%) dominated stream substrate. Wood volume was very high at 49.8 m³/100m.

COMMENTS:

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

REACH 1

T23S-R10W-S04SE

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	3.4	VWI Range:	2 - 5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	1,159	2,816	0
Secondary Channel	0	0	0
Off-Channel Units	67	99	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 1
Width: 2.4	Width: 4.3	11.0 (6.7 - 15.8)	17.2 (17.2 - 17.2)
Depth: 0.31	Height: 0.4	0.9 (0.6 - 1)	1.0 (1 - 1)

W:D ratio: 9.7
 Stream Flow Type: MF
 Average Unit Gradient: 3.6%
 Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 2.8
 Habitat Units/100m (total channel length): 6.4
 Habitat Units/100m (primary channel length): 6.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	G

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):	394	34.0
Volume (m ³):	577	49.8
Key pieces (>=12m x 0.60m):	22	1.9

OREGON DEPT OF FISH AND WILDLIFE

COUGAR CREEK PRE-TX (3-MS, 286)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/1/2005

REACH 1		T23S-R10W-S04SE					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	1.9	0.10	27	0	0	3	3	3	10	81
CASCADE/BOULDERS	9	243	1.9	0.20	495	0	2	16	32	37	13	0
POOL-BACKWATER	3	20	2.2	0.52	42	0	20	55	20	2	0	3
POOL-LATERAL SCOUR	16	127	2.7	0.52	355	0	9	40	37	10	2	2
POOL-PLUNGE	11	52	3.3	0.66	172	0	5	45	38	11	2	0
RIFFLE	25	698	2.4	0.16	1,649	0	0	13	47	34	5	0
RIFFLE W/ POCKETS	2	46	2.2	0.13	113	0	0	12	45	32	10	0
STEP/BEDROCK	1	1	1.4	0.01	2	0	0	0	0	0	0	100
STEP/COBBLE	3	16	2.6	0.13	40	0	0	15	50	35	1	0
STEP/LOG	8	8	1.7	0.11	19	0	2	24	44	27	3	0
Total:	79	1,226	2.4	0.31	2,915	0	Avg: 4	26	40	24	4	3

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	20	2.2	0.52	42	1.44%	0	0.0	
Scour Pools	27	179	2.9	0.57	528	18.10%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	27	744	2.3	0.16	1,763	60.47%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	10	258	1.9	0.19	522	17.91%	0	0.0	
Step/Falls	12	25	1.9	0.10	60	2.07%	0	0.0	
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:	30	24.5	25.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	4.9	5.2
Pool frequency (channel widths/pool):	9.5		
Residual pool depth (avg):	0.45		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **286** COUGAR CREEK PRE-TX

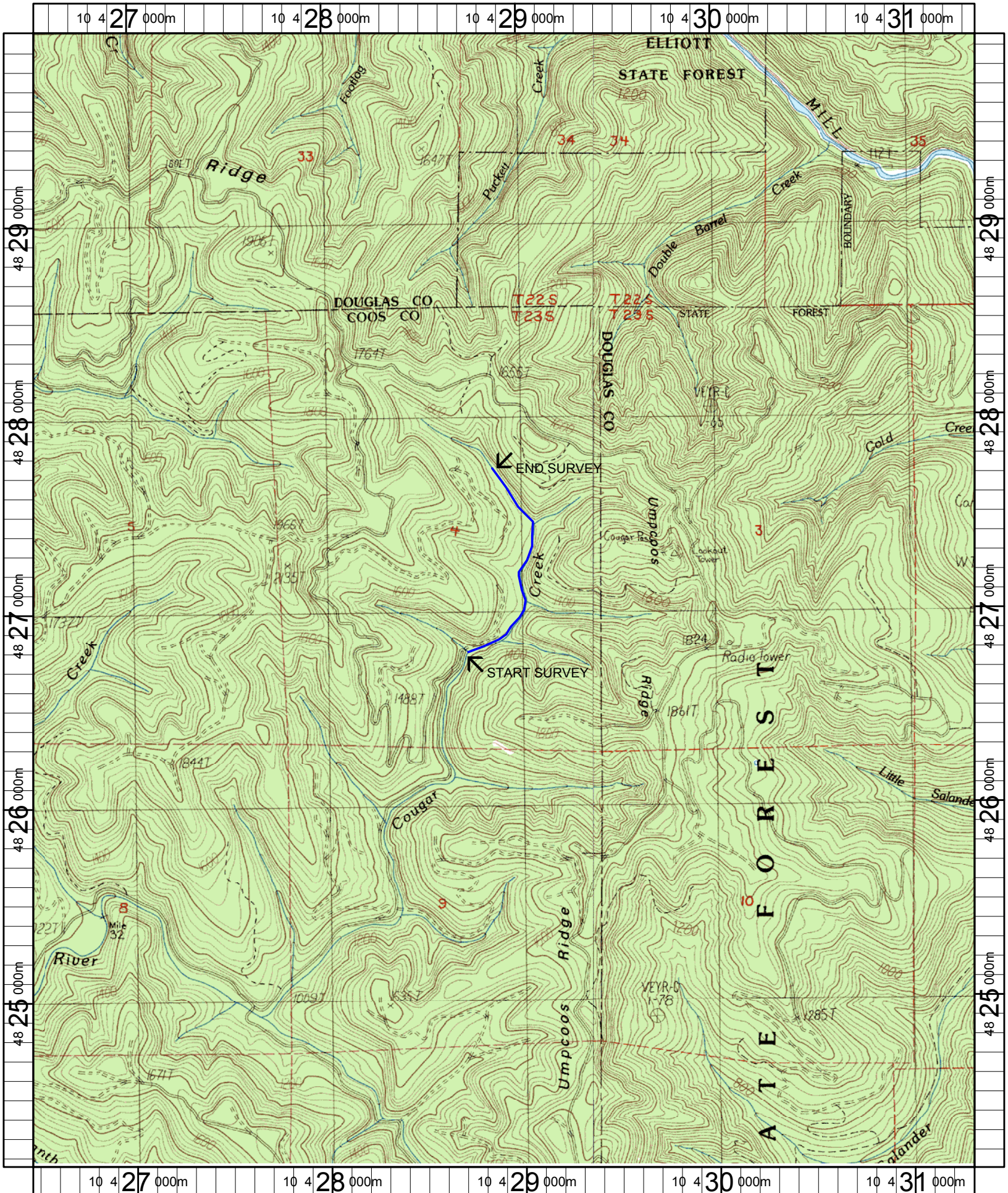
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SL	00	2.5			START AT STEP ABOVE TRIB
4	SL	00	17.6			H=0.7, REDDS
9	PP	00	55.9	DJ		
14	SC	00	112.2	/SS		
20	LP	00	188.1	/TJ		
22	CB	11	238.3			ACH=0.4, ACW=2.0
23	RI	01	283	/SS		CA CT D30 G ST LT
26	RI	00	334	SS/		REDD, CUTTHROAT
32	RI	01	466.9	/TJ		/TJ, SPAWN SURVEY SIGN
33	RI	11	466.9			ACH=0.3 ACW=1.6
34	RI	00	507.4	SS/		
36	RP	00	544.2	SS/		CH MV ST LT D15 G
37	RI	00	568.4	LS/, SS/		
40	SR	00	621.3			H=0.5
41	RI	01	664.4	/TJ		
42	CB	11	664.4			ACH=0.3 ACW=1.7
47	SL	00	718.2			H=0.9
49	LP	00	736.3			STEELHEAD
51	LP	00	743.9	SS/		
52	RI	00	781.4			CH MV ST LT D15 G
53	CB	00	814.8	DJ, SS/		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **286** COUGAR CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
56	SL	00	860.3		H=	.4
59	CB	00	904.6	DJ		
60	RI	01	921.8	/TJ		
61	RP	11	921.8		ACH=0.25	ACW=2.3
65	SL	00	970.7		H=	0.45
66	CB	00	1027.6		US MT ST D15	G
70	SL	00	1076.9		H=	0.6
71	CB	00	1114.2	DJ, /SS		
72	PP	00	1120.3	DJ		
73	SL	00	1120.6		H=	0.8
74	PP	00	1124.6	DJ		
75	SL	00	1125.1		H=	0.4
79	RI	00	1158.8		US MT ST LT D15	G



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

Location: 10 428912 E 4827057 N
 Caption: COUGAR CREEK RESTORATION SITE - MILLICOMA BASIN