

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

STREAM: Wolf Creek (MC-108)
BASIN: Yaquina River
SURVEY TYPE: Post-Tx
DATE: June 29, 2004
SURVEY CREW: Erin Richmond, Kaylea Foster, Jeff Snyder, Paul Jacobsen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 15.0 km²
USGS MAPS: Harlan
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Wolf Creek habitat survey extended 472 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 11.8 (range: 10.0-14.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.3 percent. Scour pools (59%) and riffles (35%) dominated stream habitat. Sand (44%), gravel (20%) and bedrock (19%) dominated stream substrate. Wood volume was low at 19.0 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

T11S-R08W-S31NW

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	11.8	VWI Range:	10 - 14

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	472	1,663	0
Secondary	50	44	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.8	Width: 5.0	7.8 (5.6 - 10.8)	20.9 (11 - 38)
Depth: 0.29	Height: 0.5	1.0 (0.8 - 1.2)	1.5 (1.1 - 1.7)

W:D ratio: 10.0
Stream Flow Type: LF
Average Unit Gradient: 1.3%
Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.5
Habitat Units/100m (total channel length): 9.4
Habitat Units/100m (primary channel length): 10.4

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:	1%	Reach avg: 99%
Undercut Banks:	16%	Range: 83 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	146	31.0
Volume (m ³):	89	19.0
Key pieces (>=12m x 0.60m):	1	0.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

WOLF CREEK POST-TX (MC-108)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

6/29/2004

REACH 1

T11S-R08W-S31NW

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/BOULDERS	1	8	0.4	0.20	3	2	0	0	20	80	0	0
CULVERT CROSSING	1	17	4.0	0.25	69	0	10	60	30	0	0	0
POOL-BACKWATER	7	22	1.5	0.20	30	0	34	66	0	0	0	0
POOL-LATERAL SCOUR	16	231	4.1	0.47	972	8	14	45	22	1	0	18
POOL-STRAIGHT SCOUR	1	8	4.0	0.40	32	0	9	73	9	0	0	9
RIFFLE	22	232	2.3	0.20	590	2	3	36	23	7	3	29
STEP/COBBLE	1	4	3.0	0.20	12	0	0	60	40	0	0	0
Total:	49	522	2.8	0.29	1,708	12	Avg: 11	44	20	5	1	19

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	7	22	1.5	0.20	30	1.77%	0	0.0
Scour Pools	17	239	4.1	0.46	1,004	58.77%	8	0.8
Glides	0	0			0	0.00%	0	0.0
Riffles	22	232	2.3	0.20	590	34.54%	2	0.3
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	8	0.4	0.20	3	0.19%	2	62.5
Step/Falls	1	4	3.0	0.20	12	0.70%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	17	4.0	0.25	69	4.03%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	24	46.0	50.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	11	21.1	23.3
Pool frequency (channel widths/pool):	4.3		
Residual pool depth (avg):	0.35		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

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

Total hardwoods/1000	345
Total conifers/1000 ft	711
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	0.7	2.3	0.7	0.3	0.7	2.7	2.0
15-30cm	2.3	0.3	1.0	0.3	1.0	0.0	4.3	0.7
30-50cm	0.0	2.3	2.3	0.0	1.7	0.7	4.0	3.0
50-90cm	0.0	0.0	0.3	0.0	0.3	0.0	0.7	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.3	3.3	6.0	1.0	3.3	1.3	3.9	1.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	80		73		68	
Shrub cover	52		45		42	
Grass/forb cover	43		42		38	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		17		33	
High terrace	67		83		50	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	24		19		20	

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		
21	LF	2	HT	9	75	50	50	Conifer			5				
								Hardwood							
21	RT	3	HS	57	85	50	50	Conifer	1	2					
								Hardwood	1						
21	RT	2	HS	54	85	50	50	Conifer	3	1					
								Hardwood	1						
21	RT	1	HS	45	90	50	50	Conifer		2					PHOTO # 0084
								Hardwood	1						
21	LF	3	HT	12	50	40	60	Conifer			3	1			
								Hardwood	1						
21	LF	1	HT	9	80	40	60	Conifer		3					
								Hardwood			2				
31	RT	3	HT	4	70	50	20	Conifer							
								Hardwood							
31	RT	2	HT	15	80	40	30	Conifer				1			
								Hardwood	1						
31	RT	1	HS	59	60	70	30	Conifer							
								Hardwood							
31	LF	3	HT	4	80	40	40	Conifer		1					
								Hardwood							
31	LF	2	HT	3	80	40	40	Conifer	2	1					
								Hardwood							
31	LF	1	HT	2.5	90	50	40	Conifer		1					
								Hardwood	1	1	1				
42	RT	3	HS	35	80	30	20	Conifer				2			
								Hardwood							
42	RT	2	HT	15	70	40	30	Conifer	2	1					
								Hardwood							
42	RT	1	HT	13	90	40	40	Conifer							
								Hardwood							
42	LF	3	RB	9	40	40	40	Conifer							
								Hardwood			2				
42	LF	2	HT	16	50	50	50	Conifer				2			
								Hardwood	1						
42	LF	1	HT	13	70	60	35	Conifer		1					
								Hardwood			4				

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 2-MC SITE ID: 108 WOLF CREEK POST-TX (MC-108)

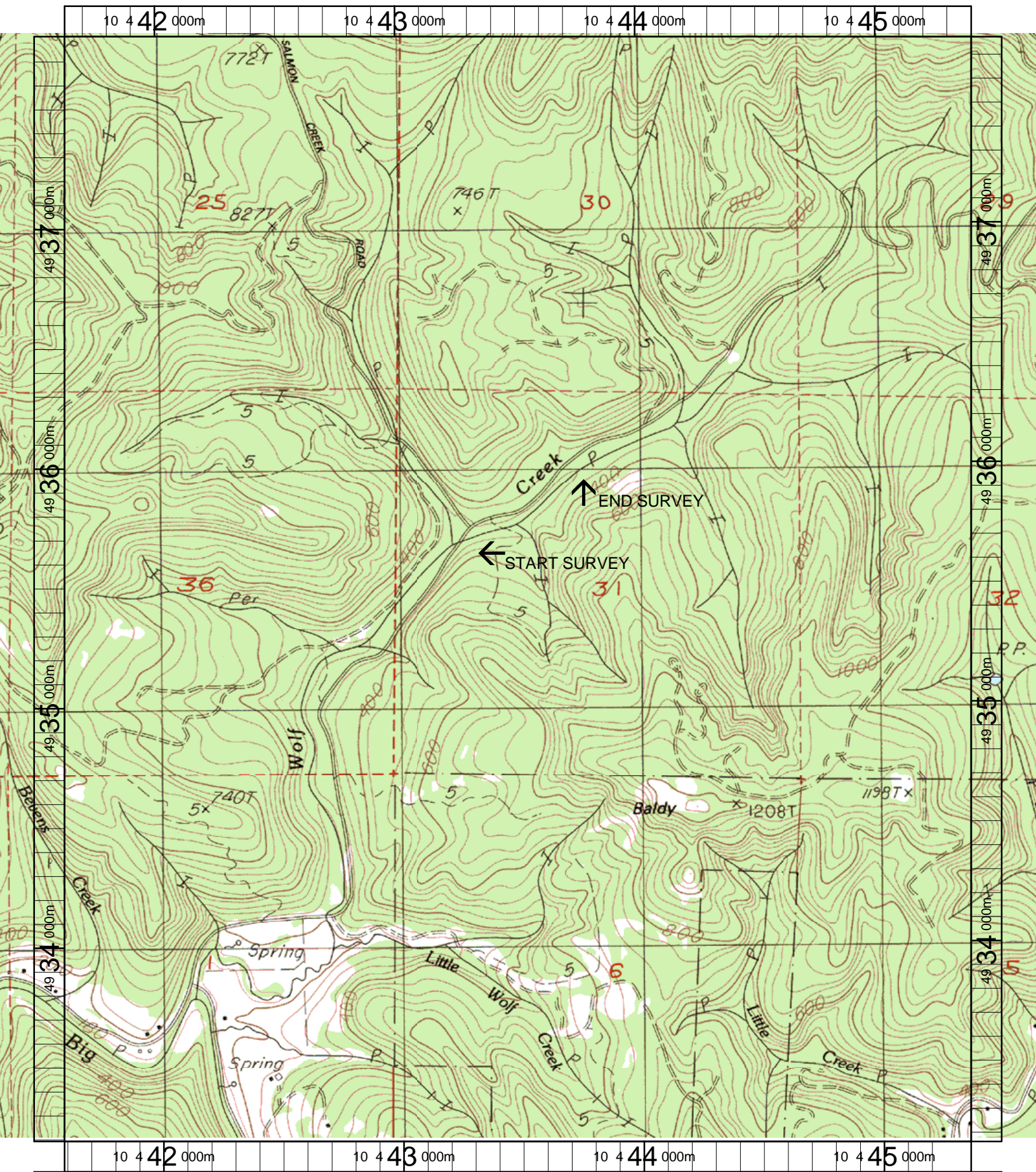
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RI	00	4.4			TEMP-14 DEG C
2	CC	00	21.6	WL, CC	NO DROP, METAL, GOOD	PHOTO 0080-0081
3	RI	00	26.1	WL		RACCOON TRACKS
4	LP	00	31.6		COHO FRY - 15	COHO - 25
7	RI	00	55.9			COHO - 20
9	LP	01	82.9	WL		COHO, ROUGH SKINNED NE
10	BW	10	82.9	WL	9 ROUGHSKINNED NEWT	COHO, ROUGH SKINNED NE
12	LP	01	102.4	HS /DJ		COHO - 50
13	BW	10	102.4			COHO - 15
14	RI	00	117.4	WL		BEAVER CUTS
15	LP	00	123.1			COHO - 40
17	LP	00	143.4	WL		COHO, ROUGH SKINNED NE
18	RI	01	157.4	/TJ HS DJ		
19	RI	11	157.4		TEMP=13 DEG C AT 15:40	
21	LP	00	167.7		RIP 1	COHO - 30, RIP 1
23	LP	00	198.1	HS		COHO, 30-50 FRY
24	LP	00	209			COHO
27	LP	00	236.4		WL- RACCOON TRACKS	COHO
28	RI	00	251.6	SS/		
29	LP	01	303.6	HS	COHO FRY - 20	COHO
30	RI	11	303.6	/TJ	T=12 DEG C AT 9:35	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **108** **WOLF CREEK POST-TX (MC-108)**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
31	RI	00	312.9		RIP 2	RIP 2
32	LP	00	331.9	HS		
35	BW	10	350.9			COHO
36	LP	01	370.6	DJ		COHO
37	BW	10	370.6	WL	ROUGH SKINNED NEWT	COHO, ROUGH SKINNED NE
38	BW	10	370.6		ROUGH SKINNED NEWT,	COHO
40	LP	01	399.7	WL		RSN
41	BW	10	399.7			COHO, RIP 3
42	RI	01	408.4			COHO
44	LP	00	417.7			COHO
46	LP	00	432	HS, DJ		
48	RI	00	462.5		ROUGH SKINNED NEWT	
49	LP	00	471.5		END SURVEY	END SURVEY



Name: HARLAN
 Date: 5/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 443489 E 4935487 N
 Caption: WOLF CREEK RETORATION SITE - YAQUINA BASIN