

**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 24, 2002  
SURVEY CREW: Russ Macal, Troy Eberly  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 15.0 km<sup>2</sup>  
USGS MAPS: Harlan  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Wolf Creek habitat survey extended 481 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 7.9 (range: 7.5 – 8.5). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (45% and rapids (31%) dominated stream habitat. Gravel (40%) and bedrock (27%) dominated stream substrate. Wood volume was moderate at 23.7 m<sup>3</sup>/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-R09W-S36SE

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 7.9		VWI Range: 7.5 - 8.5	

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	481	1,601	0
Secondary	20	9	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.2	Width	5.8	7.8	10.4
Depth	0.30	Height	0.4	0.7	1.1
		W:D ratio	16.6	Entrenchment	1.4
Stream Flow Type:	LF	Water temp (C): 16.0 - 16.0			
Avg. Unit Gradient:	0.9%	Habitat Units/100m: 6.0			

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	7%	Reach avg: 89%
Undercut Banks:	6%	Range: 72 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	103	21.4
Volume (m <sup>3</sup> ):	114	23.7
Key pieces (>=10m x 0.60m):	6	1.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

WOLF CREEK POST-TX (MC108)

HABITAT INVENTORY

Report Date: 3/17/03

Survey Date:

6/24/02

REACH 1		T11S-R09W-S36SE					REACH 1						
HABITAT DETAIL													
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area						
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
CASCADE/BOULDERS	1	10	0.4	0.01	4	0	5	10	80	5	0	0	
CULVERT CROSSING	1	15	3.7	0.15	56	0	15	30	55	0	0	0	
GLIDE	1	25	3.0	0.25	75	0	20	40	30	0	0	10	
POOL-LATERAL SCOUR	14	197	3.7	0.52	721	5	14	27	31	2	1	25	
RAPID/BEDROCK	5	145	3.5	0.08	503	0	4	6	10	0	0	80	
RIFFLE	7	110	2.2	0.08	252	0	8	18	72	1	0	1	
<b>Total:</b>	<b>29</b>	<b>501</b>	<b>3.2</b>	<b>0.30</b>	<b>1,610</b>	<b>5</b>	<b>Avg 11</b>	<b>21</b>	<b>40</b>	<b>1</b>	<b>1</b>	<b>27</b>	

HABITAT SUMMARY								
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	0	0			0	0.00%	0	0.0
Scour Pools	14	197	3.7	0.52	721	44.77%	5	0.7
Glides	1	25	3.0	0.25	75	4.66%	0	0.0
Riffles	7	110	2.2	0.08	252	15.65%	0	0.0
Rapids	5	145	3.5	0.08	503	31.22%	0	0.0
Cascades	1	10	0.4	0.01	4	0.25%	0	0.0
Step/Falls	0	0			0	0.00%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	15	3.7	0.15	56	3.45%	0	0.0

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	14	29.1
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	7	14.5
Pool frequency (channel widths/pool):	6.2	
Residual pool depth (avg):	0.44	

**RIPARIAN ZONE VEGETATION SUMMARY**

**REACH 1** **REACH 1**

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

Total hardwoods/1000	467
Total conifers/1000 ft	508
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	1.3	0.0	2.0	0.0	0.7	0.0	4.0
15-30cm	0.0	2.3	0.3	0.0	1.3	0.7	1.7	3.0
30-50cm	1.3	0.3	2.0	0.0	2.7	0.3	6.0	0.7
50-90cm	0.3	0.0	0.3	0.0	0.0	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	1.7	4.0	2.7	2.0	4.0	1.7	2.8	2.6

**Canopy closure and ground cover**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	65	56	53
Shrub cover	28	37	50
Grass/forb cover	73	53	50

**Predominant landform in each zone**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	17	33
High terrace	100	83	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 (%)	0	10	15

**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		
8	LF	1	HT	0	70	35	65	Conifer							
								Hardwood							
8	LF	2	HT	0	60	20	80	Conifer							ALDER
								Hardwood	2						
8	LF	3	HT	0	45	40	60	Conifer			2				D. FIR
								Hardwood							
8	RT	1	HT	0	70	10	90	Conifer							ALDER
								Hardwood		3	1				
8	RT	2	HS	60	65	20	80	Conifer							VINE MAPLE
								Hardwood	1						
8	RT	3	HS	60	70	20	80	Conifer							ALDER
								Hardwood		2	1				
17	LF	1	HT	0	60	30	70	Conifer			3	1			DOUGLAS FIR
								Hardwood							
17	LF	2	HT	0	50	50	50	Conifer			2	1			
								Hardwood							
17	LF	3	HT	0	40	75	25	Conifer		1					
								Hardwood							
17	RT	1	HT	0	75	30	70	Conifer							ALDER
								Hardwood		2					
17	RT	2	HT	0	75	60	40	Conifer		1	2				DOUGLAS FIR
								Hardwood							
17	RT	3	HT	0	80	65	35	Conifer			3				
								Hardwood							
24	LF	1	HT	0	55	20	80	Conifer			1				DOUGLAS FIR, ALDER
								Hardwood	2	2					
24	LF	2	HT	0	30	20	20	Conifer			2				
								Hardwood							
24	LF	3	HT	0	20	40	60	Conifer			1				D. FIR, RECENT HARVFST
								Hardwood							ELDERBERRY
24	RT	1	HT	0	60	40	60	Conifer							
								Hardwood	2						
24	RT	2	HT	0	55	50	50	Conifer							ELDERBERRY
								Hardwood	3						
24	RT	3	HS	30	60	60	40	Conifer		3	2				D. FIR, ELDERBERRY
								Hardwood	2						

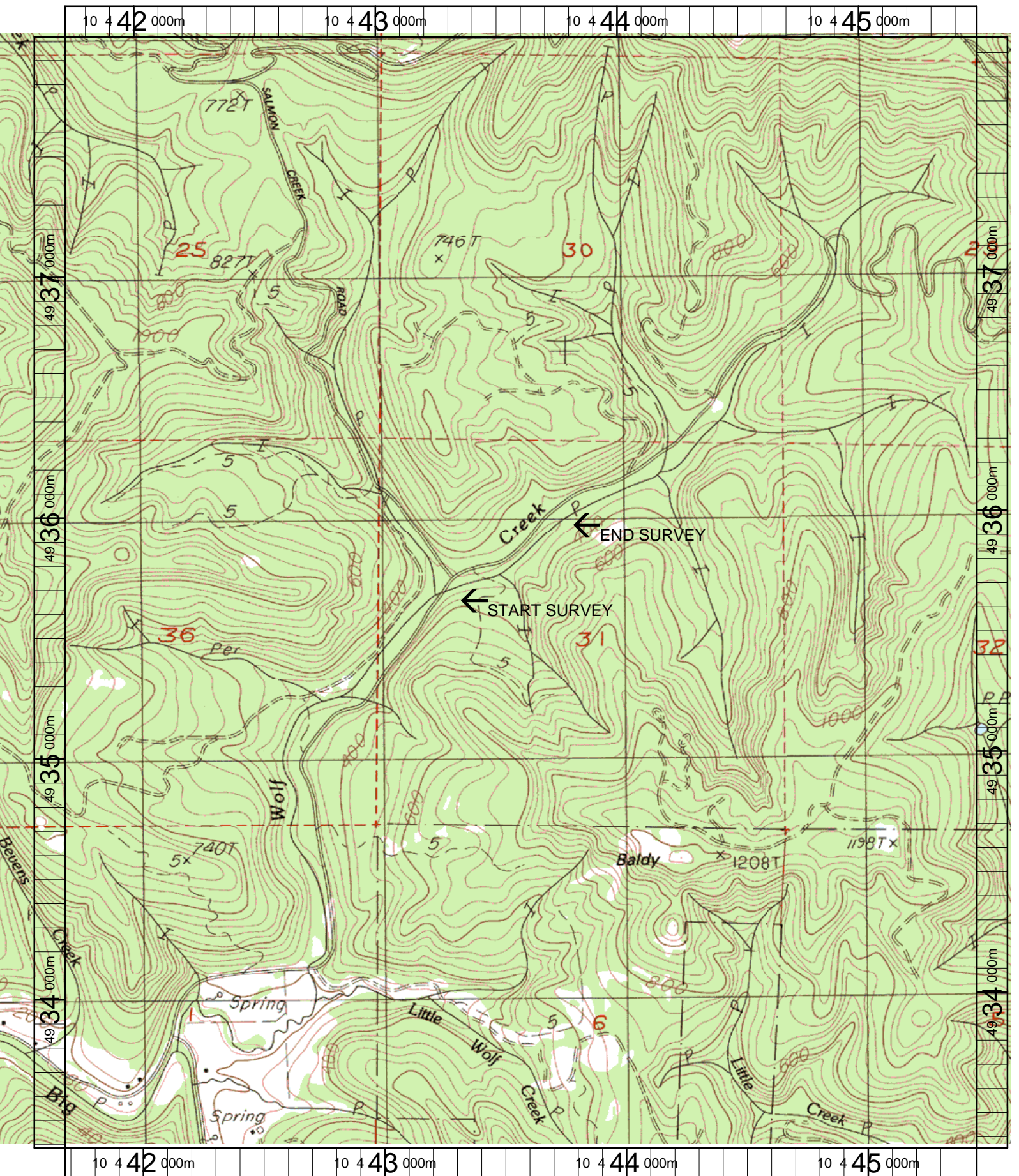
# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC**      SITE ID: **108**      **WOLF CREEK POST-TX (MC108)**

<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	6.6		BEGIN 6.6M BELOW CULV	
2	CC	00	21.6			3.7x2.0, NO STEP, SQUARE P
4	RR	00	66.2		ACTIVE THINNING ON LE	
5	LP	00	81.3	RSN	COHO, NEWT	COHO FRY
6	RI	00	93	HS		
7	LP	00	104			COHO FRY
10	RR	01	167.2	HS		COHO FRY
14	LP	00	210.9	HS, RSN		COHO FRY, SCULPIN
15	GL	00	235.9	RSN	NEWTS, CRAWDADS	COHO FRY
16	LP	00	244.4		HS	
17	RI	01	257.4	SS/	HS	RIPARIAN #2
19	LP	00	285.7	RSN, HS		COHO FRY
20	RR	00	310		HS	
23	LP	00	364.5	/SS	/SS	
24	RI	00	383.1			RIPARIAN #3
29	LP	00	481.1		T = 18 - END SURVEY	





Name: HARLAN  
 Date: 3/24/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 443578 E 4935680 N  
 Caption: WOLF CREEK RESTORATION SITE - YAQUINA BASIN