

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

STREAM: Wolf Creek Tributary (MC-206)  
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: 1.6 km<sup>2</sup>  
USGS MAPS: Harlan  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Wolf Creek Tributary habitat survey extended 477 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 9.0 (range: 4.0-14.0). Land use for the reach was second growth (15-30 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 2.6 percent. Riffles (67%) and scour pools (17%) dominated stream habitat. Sand (44%) and gravel (33%) dominated stream substrate. Wood volume was moderate at 22.1 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-R08W-S31NE

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	9.0	VWI Range:	4 - 14

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	477	758	0
Secondary	67	91	5

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 1.5	Width: 3.3	8.1 ( 4.5 - 18.3 )	19.4 ( 10 - 25 )
Depth: 0.25	Height: 0.4	0.9 ( 0.5 - 1.1 )	1.6 ( 1.2 - 1.9 )

W:D ratio: 7.9  
 Stream Flow Type: LF  
 Average Unit Gradient: 2.6%  
 Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 2.3  
 Habitat Units/100m (total channel length): 9.7  
 Habitat Units/100m (primary channel length): 11.1

**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:	0%	Reach avg: 96%
Undercut Banks:	21%	Range: 69 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	90	18.9
Volume (m <sup>3</sup> ):	105	22.1
Key pieces (>=12m x 0.60m):	9	1.9

OREGON DEPARTMENT OF FISH AND WILDLIFE

WOLF CREEK TRIB POST-TX (MC-206)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

6/29/2004

REACH 1		T11S-R08W-S31NE					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	
CULVERT CROSSING	1	21	2.3	0.20	49	0	0	30	70	0	0	0	0
DRY CHANNEL	2	35	1.4	0.00	51	0	100	0	0	0	0	0	0
DRY UNIT	1	18	1.6	0.00	29	0	70	30	0	0	0	0	0
POOL-BACKWATER	1	1	0.7	0.30	1	0	80	20	0	0	0	0	0
POOL-LATERAL SCOUR	16	76	1.8	0.36	128	0	29	56	14	1	0	0	1
POOL-PLUNGE	1	3	3.1	0.40	9	0	40	60	0	0	0	0	0
POOL-TRENCH	1	7	1.5	0.30	11	0	0	30	0	0	0	0	70
PUDDLED UNIT	2	6	0.6	0.20	3	0	90	10	0	0	0	0	0
RIFFLE	28	377	1.5	0.22	569	6	3	45	53	0	0	0	0
<b>Total:</b>	<b>53</b>	<b>544</b>	<b>1.5</b>	<b>0.25</b>	<b>849</b>	<b>6</b>	<b>Avg: 21</b>	<b>44</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</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	1	1	0.7	0.30	1	0.10%	0	0.0	
Scour Pools	18	86	1.8	0.36	148	17.42%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	28	377	1.5	0.22	569	66.96%	6	1.1	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	5	59	1.1	0.08	83	9.78%	0	0.0	
Culverts	1	21	2.3	0.20	49	5.74%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	19	34.9	39.8
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	1.8	2.1
Pool frequency (channel widths/pool):	8.7		
Residual pool depth (avg):	0.25		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1

REACH 1

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

3 transects

Total hardwoods/1000	345
Total conifers/1000 ft	264
Total conifers >20" dbh/1000 ft	0
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	0.0	0.3	0.3	1.7	0.3	2.7
15-30cm	2.0	0.3	0.7	1.3	1.3	1.0	4.0	2.7
30-50cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.0	1.3	0.7	1.7	1.7	2.7	1.4	1.9

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	83		72		63	
Shrub cover	44		32		32	
Grass/forb cover	27		30		30	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		33		67	
High terrace	83		50		17	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		17	
Riprap	0		0		0	
Surface slope (%)	14		16		43	

**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		
12	RT	2	HS	28	70	40	30	Conifer							
								Hardwood							
12	RT	1	HT	14	80	45	30	Conifer							INFLUENCE OF TALL TREES
								Hardwood			1				
12	LF	3	HS	42	60	30	40	Conifer	1	1					
								Hardwood		2					
12	LF	2	RB	0	10	20	10	Conifer							
								Hardwood							
12	RT	3	HS	42	60	20	40	Conifer							
								Hardwood							
12	LF	1	HT	12	70	20	30	Conifer							
								Hardwood	2	1					
24	LF	2	HT	4	80	30	50	Conifer							
								Hardwood		4					
24	RT	3	HT	90	30	60	0	Conifer							
								Hardwood							
24	RT	2	HT	0	90	30	60	Conifer							
								Hardwood							
24	LF	3	RB	3	50	10	60	Conifer							
								Hardwood	1	1					
24	LF	1	HT	4	80	50	30	Conifer							
								Hardwood		4					
24	RT	1	HT	0	90	70	30	Conifer							INFLUENCE OF TALL TREES
								Hardwood			2				
35	LF	2	HT	21	90	40	20	Conifer							
								Hardwood			2				
35	RT	3	HS	45	90	20	10	Conifer							
								Hardwood			1				
35	LF	3	HS	38	90	50	30	Conifer	4						
								Hardwood			2				
35	RT	1	HS	41	90	40	20	Conifer							
								Hardwood							
35	LF	1	HT	12	90	40	20	Conifer							
								Hardwood							
35	RT	2	HS	43	90	30	10	Conifer							
								Hardwood	1						

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC**      SITE ID: **206**      WOLF CREEK TRIB POST-TX (MC-20)

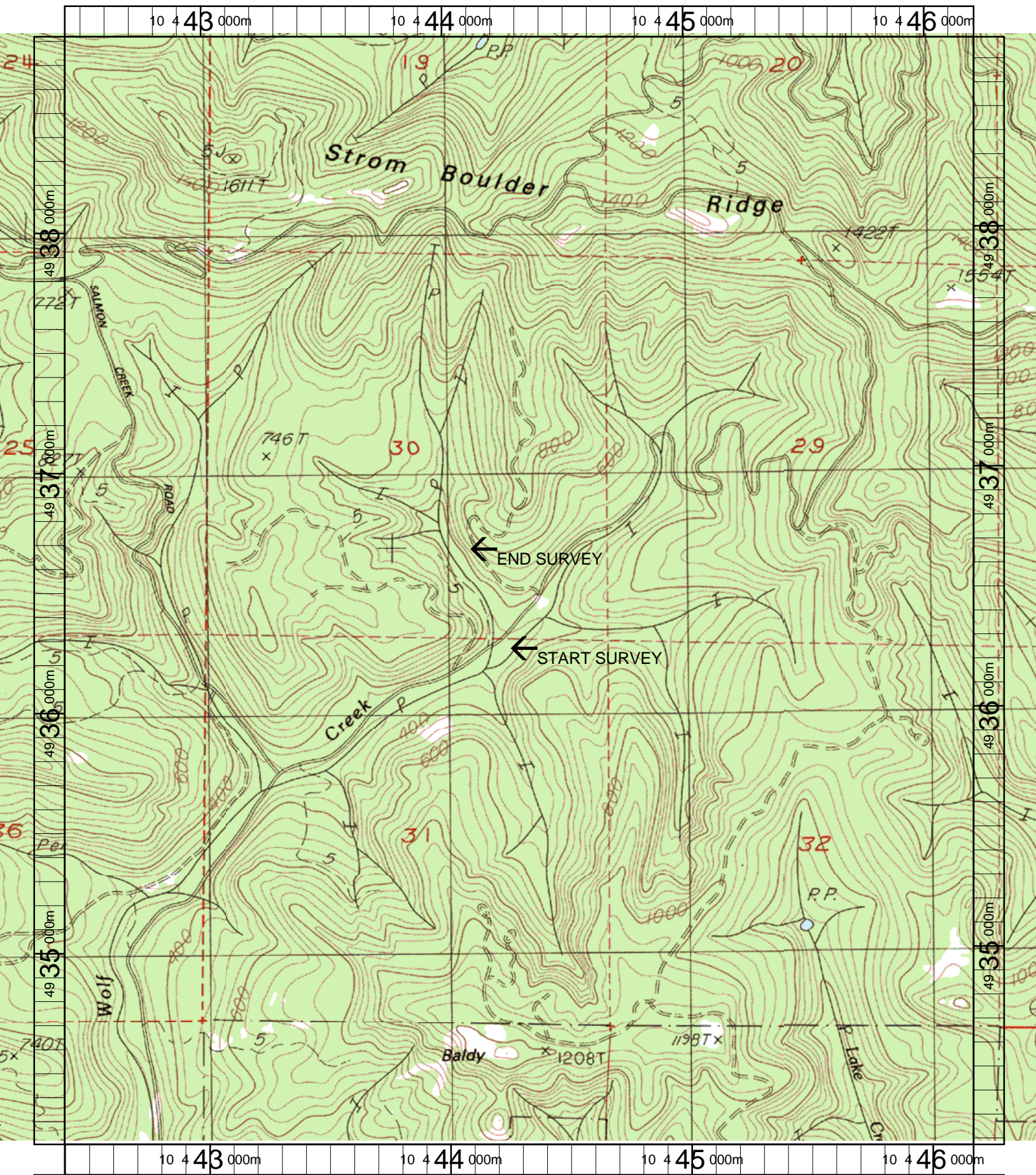
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	6		T=14 DEG C AT 13:15	
2	CC	00	27.2	CC	STEEL CORR H=1.8 W=2.	NO STEP
3	RI	00	32.5		METRICS AT U3 DUE TO	OPEN BOTTOM H-1.8 W-2.3
4	LP	00	35.8		COHO FRY	COHO
5	RI	00	60.3			COHO
7	RI	00	93.8			COHO
9	RI	00	106.8	DJ		
10	RI	00	112.8			COHO
11	LP	00	118.3	HS		COHO
12	RI	00	145.8	WL	RIP 1	COHO, PACIFIC GIANT SAL
13	LP	00	150.8	HS	PACIFIC GIANT SAL, COH	COHO
14	RI	00	176.3			COHO
15	RI	00	199.9	HS		COHO
16	RI	00	209.1	HS		COHO
17	LP	00	212.6		COHO FRY	
18	RI	00	221.1			COHO
21	LP	00	239.8			COHO
23	PP	01	247.8	HS		
24	RI	01	249.6	HS	RIP 2	RIP 2
26	LP	02	249.6	WL		ROUGHSKINNED NEWT
28	LP	00	253.8			COHO

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC**      SITE ID: **206**      WOLF CREEK TRIB POST-TX (MC-20)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
30	RI	00	284.1	HS		COHO
31	RI	00	302.4			COHO
32	LP	00	309.7			COHO
33	RI	00	333	HS, SS/		COHO
35	RI	01	359		RIP 3	COHO RIP 3
36	LP	01	363.2			COHO
38	LP	01	371.6			COHO
40	DC	02	391.9			MUCK
41	PD	02	391.9			COHO
42	DC	02	391.9			MUCK
43	RI	00	403.4	SS/		
48	BW	10	428.7			COHO
49	RI	00	454.7			COHO
50	LP	00	458.7			COHO
52	LP	00	468.7			COHO
53	RI	00	477.1		END OF SURVEY	END OF SURVEY



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

Location: 10 444297 E 4936500 N  
 Caption: WOLF CREEK TRIBUTARY RESTORATION SITE -  
 YAQUINA BASIN