

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 23, 2003
SURVEY CREW: Jim Andrews, Jeff Snyder
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 442 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 9.2 (range: 1.1-22.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 0.8 percent. Scour pools (58%) dominated stream habitat. Sand (31%) and gravel (28%) dominated stream substrate. Wood volume was moderate at 25.6 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.

OREGON DEPARTMENT OF FISH AND WILDLIFE

WOLF CREEK POST-TX (MC-108)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

6/23/03

REACH 1

T11S-R08W-S30SE

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	9	1.1	0.20	10	0	5	15	35	40	5	0
CULVERT CROSSING	1	20	3.8	0.20	75	0	20	40	40	0	0	0
POOL-BACKWATER	1	2	2.0	0.25	4	0	60	40	0	0	0	0
POOL-LATERAL SCOUR	18	225	3.8	0.46	855	9	33	37	20	4	0	6
POOL-STRAIGHT SCOUR	1	7	4.9	0.50	35	0	45	50	5	0	0	0
RAPID/BEDROCK	5	68	3.9	0.18	276	0	7	9	10	5	0	69
RIFFLE	12	123	2.2	0.19	262	0	17	31	38	3	0	10
STEP/COBBLE	3	7	2.0	0.08	10	0	5	15	73	7	0	0
Total:	42	461	3.2	0.31	1,526	9	Avg 23	31	28	5	0	14

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	1	2	2.0	0.25	4	0.26%	0	0.0
Scour Pools	19	232	3.8	0.47	890	58.28%	9	1.0
Glides	0	0			0	0.00%	0	0.0
Riffles	12	123	2.2	0.19	262	17.18%	0	0.0
Rapids	5	68	3.9	0.18	276	18.07%	0	0.0
Cascades	1	9	1.1	0.20	10	0.63%	0	0.0
Step/Falls	3	7	2.0	0.08	10	0.66%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	20	3.8	0.20	75	4.90%	0	0.0

POOL SUMMARY

	Total	# / Km
All Pools:	20	43.4
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	11	23.9
Pool frequency (channel widths/pool):	3.4	
Residual pool depth (avg):	0.33	

STREAM SUMMARY

WOLF CREEK POST-TX (MC-108)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
42	461	3.2	0.31	1,526	23	31	28	5	0	14	9

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	4	0.26%
Scour Pools	890	58.28%
Glides	0	0.00%
Riffles	262	17.18%
Rapids	276	18.07%
Cascades	10	0.63%
Step/Falls	10	0.66%
Dry	0	0.00%
Culverts	75	4.90%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	366
Total conifers/1000 ft	366
Total conifers >20" dbh/1000 ft	61
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	0.0	0.3	0.0	1.3
15-30cm	0.7	1.3	0.7	0.3	0.7	0.0	2.0	1.7
30-50cm	0.0	1.0	2.3	0.0	0.7	1.3	3.0	2.3
50-90cm	0.3	0.3	0.3	0.0	0.3	0.3	1.0	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	3.3	3.3	0.7	1.7	2.0	2.0	2.0

Canopy closure and ground cover

	Zone 1 0-10 meters	Zone 2 10 - 20 meters	Zone 3 20 - 30 meters
	(%)	(%)	(%)
Canopy closure	80	71	67
Shrub cover	32	31	36
Grass/forb cover	68	69	64

Predominant landform in each zone

	Zone 1 0-10 meters	Zone 2 10 - 20 meters	Zone 3 20 - 30 meters
	(%)	(%)	(%)
Hillslope	50	50	50
High terrace	50	50	50
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 (%)	21	13	12

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	366
Total conifers/1000 ft	366
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

<u>Diameter class (cm)</u>	<u>Zones 1-3</u>	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	1.3
15-30cm	2.0	1.7
30-50cm	3.0	2.3
50-90cm	1.0	0.7
>90cm	0.0	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		
10	RT	3	HS	44	90	10	90	Conifer							
								Hardwood							
10	RT	2	HS	43	60	30	70	Conifer		1					
								Hardwood							
10	RT	1	HS	82	80	50	50	Conifer							
								Hardwood				1			
10	LF	3	HT	2	35	40	60	Conifer					1		
								Hardwood							
10	LF	2	HT	3.5	75	15	85	Conifer		1	1	1		TIMBER SALE BOUNDARY	
								Hardwood	1						
10	LF	1	HT	7	85	35	65	Conifer					1		
								Hardwood							
22	RT	3	HT	2.5	85	30	70	Conifer			1	2			
								Hardwood	1						
22	LF	1	HT	2	60	40	60	Conifer			2				
								Hardwood	1						
22	LF	2	HT	1	70	60	40	Conifer							
								Hardwood							
22	LF	3	HT	2	80	70	30	Conifer			1				
								Hardwood							
22	RT	1	HT	2	90	40	60	Conifer							
								Hardwood			1				
22	RT	2	HT	10	85	40	60	Conifer				6			
								Hardwood							
34	LF	2	HS	11.5	60	5	95	Conifer							
								Hardwood							
34	LF	3	HS	3.5	40	5	95	Conifer							
								Hardwood							
34	RT	1	HS	19	80	15	85	Conifer							
								Hardwood				1			
34	RT	2	HS	8	75	35	65	Conifer							
								Hardwood			1				
34	RT	3	HS	19	70	60	40	Conifer							
								Hardwood				4	1		
34	LF	1	HS	15	85	10	90	Conifer							
								Hardwood	1	3	2				

Comment Summary

Oregon Plan Monitoring Sites 2003

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

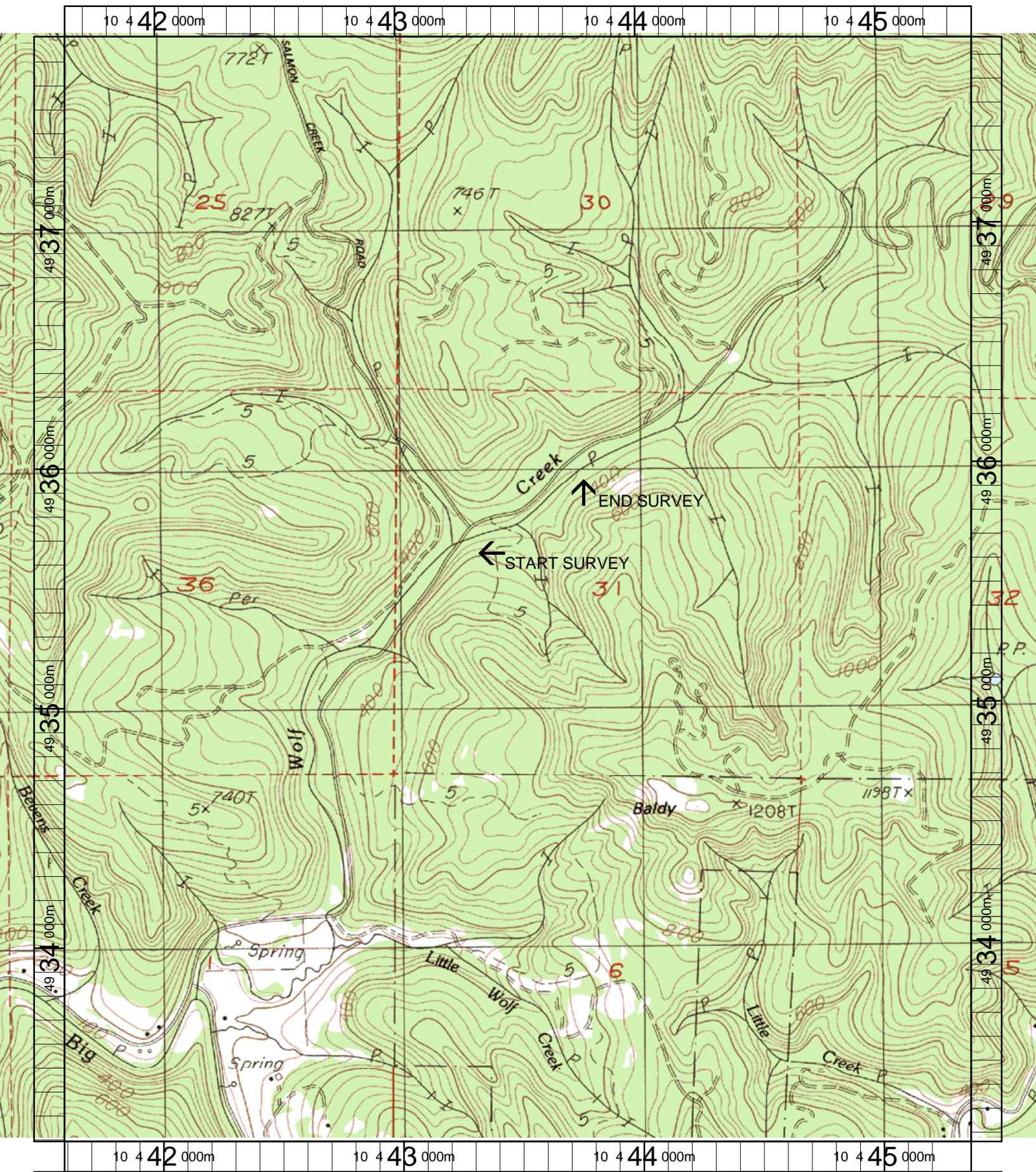
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	CC	00	19.7	WL, CC	STARTED BELOW CULV.	SALAMANDER DS/CULVERT
3	RR	00	52.9			MXED CON/ DEC STAND
5	LP	00	82.1			FISH
6	SC	00	84.1			PHOTO 0001 0002
7	LP	00	103.8	DJ, HS	HS, DJ	SITE # 10 (4 LOGS)
9	LP	00	126	WL		7- ROUGH-SKINNED NEWTS
12	RI	00	146.6			FISH
13	RR	01	160.4	HS, DJ /TJ	HS,DJ,/TJ	ACW=1.1M
14	CB	11	160.4			INCISED NARROW CHAN. 11
15	LP	00	174.4		COHO=15-20	FISH-COHO
17	LP	00	210.7	DJ, HS	COHO=50+	
18	LP	00	224		SAND	ACCUM SAND DEEP
21	LP	00	250.9	DJ		FLAG, LP #35-07/97
22	RI	00	260.1			FLAG #2, HAB. UNIT #17 (AQI
23	LP	01	268	/TJ	/TJ	FISH
24	RI	11	268		TJ ON TOPO	TJ ON TOPO ACW=1.5M
25	LP	00	278.7	DJ	COHO PRESENT	FISH
27	LP	00	307	DJ	COHO PRESENT	FISH
30	LP	00	340.2			FISH
34	RI	00	366.5			FLAG RIP #3 UNIT #25
37	LP	00	405.7	WL		R-S NEWT, FISH

Comment Summary

Oregon Plan Monitoring Sites 2003

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>
39	LP	00	420.4	DJ	COHO P	
42	LP	00	442.2	WL		END FISH



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