

**ODFW AQUATIC INVENTORY PROJECT
RESTORATION MONITORING
STREAM HABITAT REPORT**

STREAM: WOLF CREEK TRIBUTARY
 GCG: 2-MC
 SITE ID: 206
 BASIN: YAQUINA
 TREATMENT DATE: 2003
 SURVEY DATE: 2/18/2009
 SURVEY CREW: David Jones / Ryan Emig
 USGS MAPS: HARLAN
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T11S-R08W-S31NE

SURVEY DESCRIPTION:

Channel morphology: Constrained alternately by high terraces and hillslopes

Dominant landuse(s): Second growth timber (15-30 cm dbh)

Dominant riparian vegetation: Deciduous trees: size class 30-50cm dbh

Primary channel length (meters) and area (m²): 529 : 1,032

Secondary channel length (meters) and area (m²) 39 : 28

VWI average: 12.8 VWI Range: 8 - 20 Average Gradient: 1.5%

Pieces LWD per 100m: 15.3 Wood Volume (m³) per 100m: 19.3

Percent pools: 28% Complex pools (LWD pieces \geq 3): 8 Pools \geq 1m deep:0

<u>Percent substrate (avg):</u>	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	5	19	64	6	1	5
Pool units	4	30	55	5	2	3
Fast water units	0	9	80	7	1	3

SURVEY COMMENTS:

The Wolf Creek Tributary habitat survey is a post-treatment, long term monitoring site. The crew noted habitat structures throughout the survey. They also noted observing salmon and/or steelhead redds throughout. Juvenile coho salmon, resident cutthroat trout, and rough skinned newts were observed within the survey. There were no potential barriers to upstream fish migration observed within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2004. Comparisons were made among key coho salmon habitat attributes: total secondary channel length, pieces of LWD per 100 m, wood volume per 100 m, percent pools, and complex pools. Key attributes decreased slightly except percent pools and complex pools, which showed a significant increase.

Survey Date: 2/18/2009

Report Date: 2/16/2010

T11S-R08W-S31NE

REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	12.8	VWI Range:	8 - 20

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

Type	Length (m)	Area (m ²)	Dry Units
Primary	529	1,032	0
Secondary	39	28	2

Channel Dimensions (m)

Wetted	Active	Floodprone <i>n</i> = 5	First Terrace <i>n</i> = 5
Width: 1.9	Width: 2.5	3.7 (3.3 - 4.1)	5.1 (4.5 - 6.5)
Depth: 0.22	Height: 0.2	0.4 (0.3 - 0.4)	1.0 (0.75 - 1.35)

W:D ratio: 14.1

Stream Flow Type: LF

Average Unit Gradient: 1.5%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 12.8

Habitat Units/100m (primary channel length): 13.8

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	ST	MT
Riparian Vegetation:	D30	S

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	81	15.3
Volume (m ³):	102	19.3
Key pieces (>=12m x 0.60m):	5	0.9

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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	6	1.5	0.15	8	0	0	0	90	10	0	0
CULVERT CROSSING	1	22	2.0	0.15	44	0	0	10	85	5	0	0
DRY UNIT	1	15	0.6	0.00	9	0	90	10	0	0	0	0
POOL-BACKWATER	1	3	1.6	0.35	4	0	10	85	5	0	0	0
POOL-ISOLATED	2	3	0.5	0.18	1	0	25	33	43	0	0	0
POOL-LATERAL SCOUR	29	132	2.1	0.34	285	0	4	31	57	5	2	1
POOL-STRAIGHT SCOUR	1	4	3.0	0.25	11	0	0	16	16	5	0	63
PUDDLED UNIT	1	17	0.7	0.10	12	0	90	10	0	0	0	0
RAPID/BOULDERS	1	6	2.5	0.10	14	0	0	5	89	5	0	0
RIFFLE	33	361	1.8	0.14	669	0	0	9	79	7	1	3
STEP/BEDROCK	2	2	1.3	0.08	3	0	3	0	8	0	0	90
Total:	73	569	1.9	0.22	1,060	0	Avg: 5	19	64	6	1	5

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	5	0.9	0.23	5	0.50%	0	0.0
Scour Pools	30	136	2.1	0.34	296	27.95%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	33	361	1.8	0.14	669	63.13%	0	0.0
Rapids	1	6	2.5	0.10	14	1.30%	0	0.0
Cascades	1	6	1.5	0.15	8	0.78%	0	0.0
Step/Falls	2	2	1.3	0.08	3	0.28%	0	0.0
Dry	2	31	0.7	0.05	20	1.91%	0	0.0
Culverts	1	22	2.0	0.15	44	4.15%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

WOLF CREEK TRIBUTARY
GCG: 2-MC SITE ID: 206

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T11S-R08W-S31NE

REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	33	58.0	62.4
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	8	14.1	15.1
Pool frequency (channel widths/pool):	6.8		
Residual pool depth (avg):	0.25		

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 2/18/2009

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 206 STREAM: WOLF CREEK TRIBUTARY

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	CC	00	22	CC	NO STEP, NATURAL SUBSTRATE IN CULVERT
1	10	LP	00	97.9	DJ	
1	14	LP	00	117.4	DJ,HS	REDD IN TAIL OUT
1	16	LP	00	131.1		REDD IN TAIL OUT
1	19	RI	00	159.6	HS	
1	20	LP	00	167.6	HS	REDD IN POOL JUVENILE COHO IN POOL
1	23	RI	00	188.4	HS	
1	26	LP	00	211.9	DJ,HS	
1	27	RI	00	216.4		REDD IN RIFFLE
1	32	LP	00	244.4		REDD IN TAIL OUT
1	35	RB	01	263.8	HS	RAPID IS OVER GRAVEL - NO BOULDERS
1	37	RI	01	272.7	HS	
1	38	PD	02	272.7	/SS,AM	ROUGH-SKINNED NEWT
1	40	LP	00	276.7	HS	JUVENILE COHO
1	42	LP	00	304.7	DJ,HS	
1	47	RI	00	343.7	\SS	
1	48	LP	00	352.7	SS/	
1	51	LP	00	359.3	DJ,HS	
1	52	CB	00	364.8	SS/	CASCADE OVER GRAVEL/COBBLE - NO BOULDERS
1	55	RI	01	399.3	/SS	
1	58	RI	00	424.3		MULTIPLE REDDS IN RIFFLE
1	61	LP	00	440.6		A RESIDENT CUTTHROAT PRESENT
1	66	RI	00	464.1	SS/	

Wolf Creek Tributary (MC-206) 2009 Winter Habitat Survey Photographs



Unit 1 - Downstream view of culvert at start of survey.
Wolf Cabin Creek Road crosses here.



Looking upstream at the end of the survey.



Looking upstream at the end of the survey.