

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

STREAM: Golf Creek (L-33)
BASIN: Clackamas River
SURVEY TYPE: Post-Tx
DATE: March 15, 2007
SURVEY CREW: Matthew Strickland, Charles Stein
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 2 km²
USGS MAPS: Elwood
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Golf Creek habitat survey extended 519 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 12.5 (range: 1-20). Land use for the reach was light grazing and second growth timber (15-30 cm dbh). The average unit gradient was 10 percent. Cascades (58%) and rapids (32%) dominated stream habitat. Gravel (46%) and cobble (26%) dominated stream substrate. Wood volume was low at 11.9 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

The crew noted no habitat structures during the survey.

A culvert was documented at 276 meters into the survey reach.

Stream Golf Creek (L-33)
 Basin Clackamas River
 Treatment Large Wood

	ODFW Benchmark		Pre	Post	Post		
Habitat Variable	Desirable	Undesirable	2/23/00	2/7/01	3/15/07		
% Pool Area	>35%	<10%	11.4	9.5	6.5		
Number of Pools			16	8	8		
Deep Pools/km (>1.0 m)			0.0	0.0	0.0		
% Off-Channel			2.1	28.6	0		
LWD – Pieces/100m	>20	<10	10.9	22.1	20.8		
LWD – Volume/100m	>30	<20	15.9	41.1	11.9		
LWD – Key Pieces/100m	>3	<1	1.4	2.2	0.0		
Large Wood Jams/km			13.6	17.6			
% Riffle Fines	<10	>20	12	31	27		
% Riffle Gravel	>35	<15	80	62	55		
% Bedrock			0	0	0		

Bold is noticeable change

Comments: Pool area and the number of pools appear to be decreased from pre-treatment conditions. This decrease may be in part due to variable stream flows between surveys, so may not be as dramatic as it looks. Off channel habitat also seems to have decreased over time, as well as wood volume and key wood pieces. Substrate has remained stable. It seems like this project may not have been successful over the long term, perhaps because larger wood is leaving the system and being replaced by smaller pieces.

REACH 1

T04S-R04E-S06SE

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	12.5	VWI Range:	1 - 20

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 Channel	519	961	0
Secondary Channel	0	0	0
Off-Channel Units	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 1.9	Width: 3.5	7.2 (5.7 - 9.4)	13.9 (10.8 - 17)
Depth: 0.24	Height: 0.4	0.9 (0.8 - 0.9)	1.9 (1 - 3.5)

W:D ratio: 8.3
 Stream Flow Type: HF
 Average Unit Gradient: 10.0%
 Water temperature (°C): 10.0 - 10.0

Entrenchment (ACW:FPW ratio): 2.2
 Habitat Units/100m (total channel length): 6.2
 Habitat Units/100m (primary channel length): 6.2

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LG	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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	108	20.8
Volume (m ³):	62	11.9
Key pieces (>=12m x 0.60m):	0	0.0

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

3/15/2007

REACH 1		T04S-R04E-S06SE					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	10	305	1.8	0.20	558	0	0	8	33	43	17	0	
CULVERT CROSSING	1	5	0.7	0.10	4	0	0	0	33	67	0	0	
POOL-DAMMED	1	6	1.1	0.40	7	0	9	23	59	9	0	0	
POOL-LATERAL SCOUR	3	19	1.7	0.45	31	0	10	44	41	2	0	4	
POOL-PLUNGE	3	9	2.2	0.55	19	0	7	22	60	10	0	2	
POOL-STRAIGHT SCOUR	1	3	2.1	0.40	6	0	5	21	53	21	0	0	
RAPID/BOULDERS	6	158	1.9	0.13	307	0	2	13	49	34	2	0	
RIFFLE W/ POCKETS	1	7	2.2	0.25	15	0	9	18	55	18	0	0	
STEP/LOG	6	8	2.1	0.15	15	0	7	22	57	10	4	0	
Total:	32	519	1.9	0.24	961	0	Avg: 4	17	46	26	6	0	

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	6	1.1	0.40	7	0.69%	0	0.0	
Scour Pools	7	30	2.0	0.49	56	5.83%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	1	7	2.2	0.25	15	1.53%	0	0.0	
Rapids	6	158	1.9	0.13	307	31.90%	0	0.0	
Cascades	10	305	1.8	0.20	558	58.10%	0	0.0	
Step/Falls	6	8	2.1	0.15	15	1.56%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	5	0.7	0.10	4	0.39%	0	0.0	

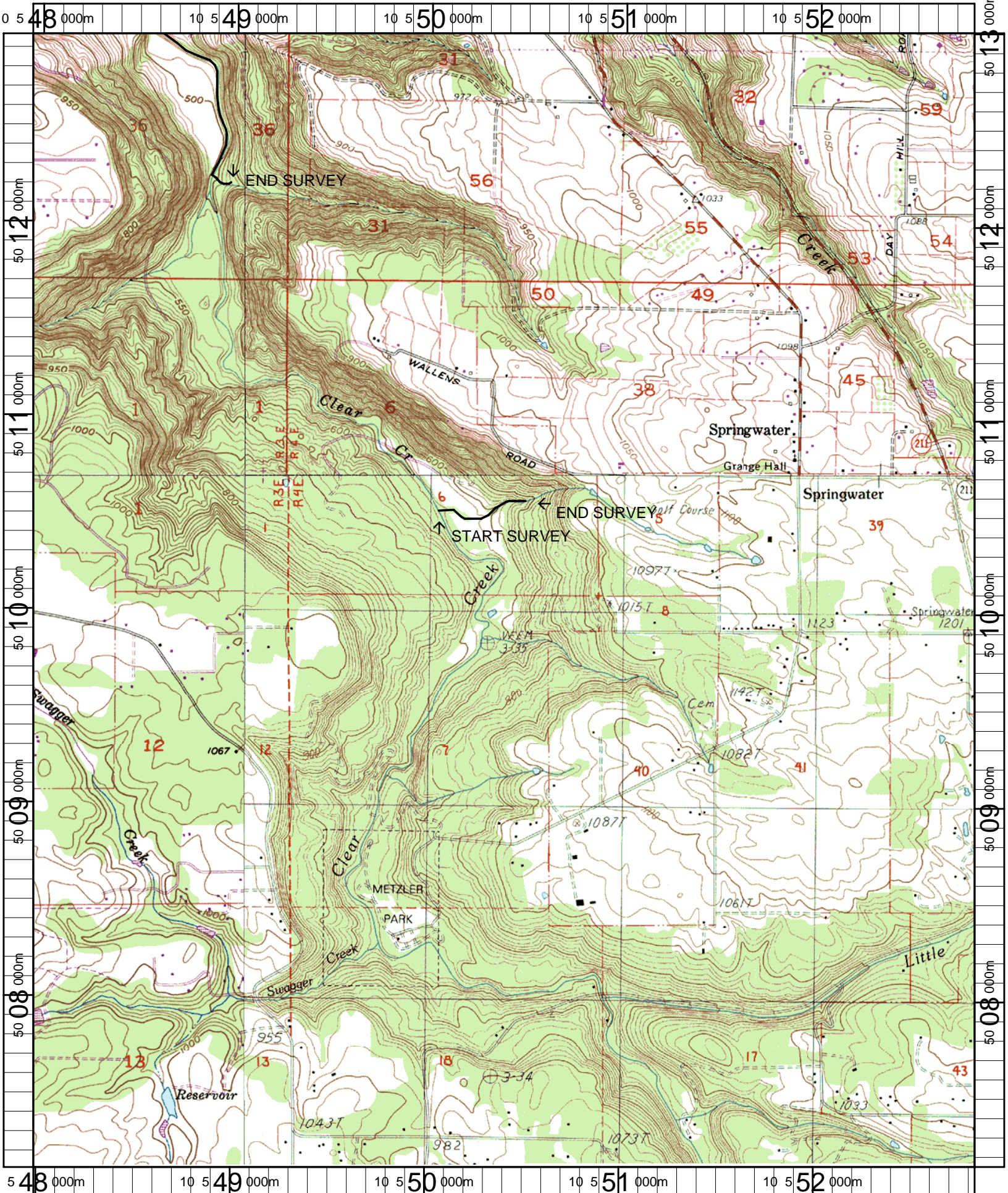
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	8	15.4	15.4
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	3.9	3.9
Pool frequency (channel widths/pool):	18.5		
Residual pool depth (avg):	0.29		

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 7-L SITE ID: 33 GOLF CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
14	CB	00	169.4		CATTLE ACCESS CREEK AT FENCED
16	RB	00	202.4	BC	OLD LOG BRIDGE
23	CC	00	276.9	CC	
24	CB	00	304.9	SS/	
32	CB	00	518.9	/LS	



Name: ELWOOD
 Date: 4/25/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0550387 E 5010059 N
 Caption: GOLF CREEK (CLEAR CREEK TRIBUTARY) RESTORATION SITE - CLACKAMAS BASIN