

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: July 16, 2007
SURVEY CREW: Paul Dunnette, April Lewis
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 2.0 km²
USGS MAPS: Elwood
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Golf Creek habitat survey extended 509 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 13.5 (range: 2.0-20.0). Land use for the reach was second growth (15-30 cm dbh) trees agriculture. The average unit gradient was 6.2 percent. Riffles (66%) dominated stream habitat. Cobble (38%) and silt (28%) dominated stream substrate. Wood volume was low at 11.0 m³/100m.

COMMENTS:

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

REACH 1

T04S-R04E-S06SW

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	13.5	VWI Range:	2 - 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	509	751	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 = 4
Width: 1.5	Width: 2.5	2.7 (2 - 3.3)	8.8 (2.5 - 26)
Depth: 0.06	Height: 0.3	0.6 (0.5 - 1)	1.8 (0.7 - 4.8)

W:D ratio: 8.4
 Stream Flow Type: LF
 Average Unit Gradient: 6.2%
 Water temperature (°C): 16.0 - 16.0

Entrenchment (ACW:FPW ratio): 1.1
 Habitat Units/100m (total channel length): 5.3
 Habitat Units/100m (primary channel length): 5.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	AG
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	15%	Reach avg: 62%
Undercut Banks:	5%	Range: 22 - 72

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	66	13.0
Volume (m ³):	56	11.0
Key pieces (>=12m x 0.60m):	1	0.2

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

7/16/2007

REACH 1		T04S-R04E-S06SW					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	2	50	1.5	0.04	75	0	10	0	10	30	50	0
CULVERT CROSSING	1	6	1.0	0.02	6	0	100	0	0	0	0	0
POOL-DAMMED	1	7	1.8	0.30	12	0	80	0	15	5	0	0
POOL-PLUNGE	2	4	1.8	0.30	7	0	88	0	5	7	0	0
POOL-STRAIGHT SCOUR	1	3	1.8	0.20	5	0	80	0	5	15	0	0
RAPID/BOULDERS	4	100	1.5	0.02	145	21	13	4	14	35	35	0
RIFFLE	15	338	1.4	0.03	498	7	16	2	32	48	2	0
STEP/LOG	1	1	3.0	0.02	3	0	0	0	20	80	0	0
Total:	27	509	1.5	0.06	751	28	Avg: 28	1	22	38	10	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	7	1.8	0.30	12	1.58%	0	0.0	
Scour Pools	3	7	1.8	0.27	12	1.65%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	15	338	1.4	0.03	498	66.27%	7	1.4	
Rapids	4	100	1.5	0.02	145	19.32%	21	14.5	
Cascades	2	50	1.5	0.04	75	9.99%	0	0.0	
Step/Falls	1	1	3.0	0.02	3	0.40%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	6	1.0	0.02	6	0.79%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	4	7.9	7.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	2.0	2.0
Pool frequency (channel widths/pool):	51.7		
Residual pool depth (avg):	0.26		

Survey Date 7/16/2007
Report Date: 11/7/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	264
Total conifers/1000 ft	406
Total conifers >20" dbh/1000 ft	20
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	4.7	1.7	0.3	0.7	0.7	0.3	5.7	2.7
15-30cm	0.7	0.7	0.0	0.3	0.0	0.0	0.7	1.0
30-50cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
50-90cm	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	5.7	3.0	0.3	1.0	0.7	0.3	2.2	1.4

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	34		11		13	
Shrub cover	55		25		18	
Grass/forb cover	32		72		75	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		33		33	
High terrace	83		67		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 (%)	8		12		11	

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	264
Total conifers/1000 ft	406
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	5.7	2.7
15-30cm	0.7	1.0
30-50cm	0.0	0.3
50-90cm	0.3	0.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

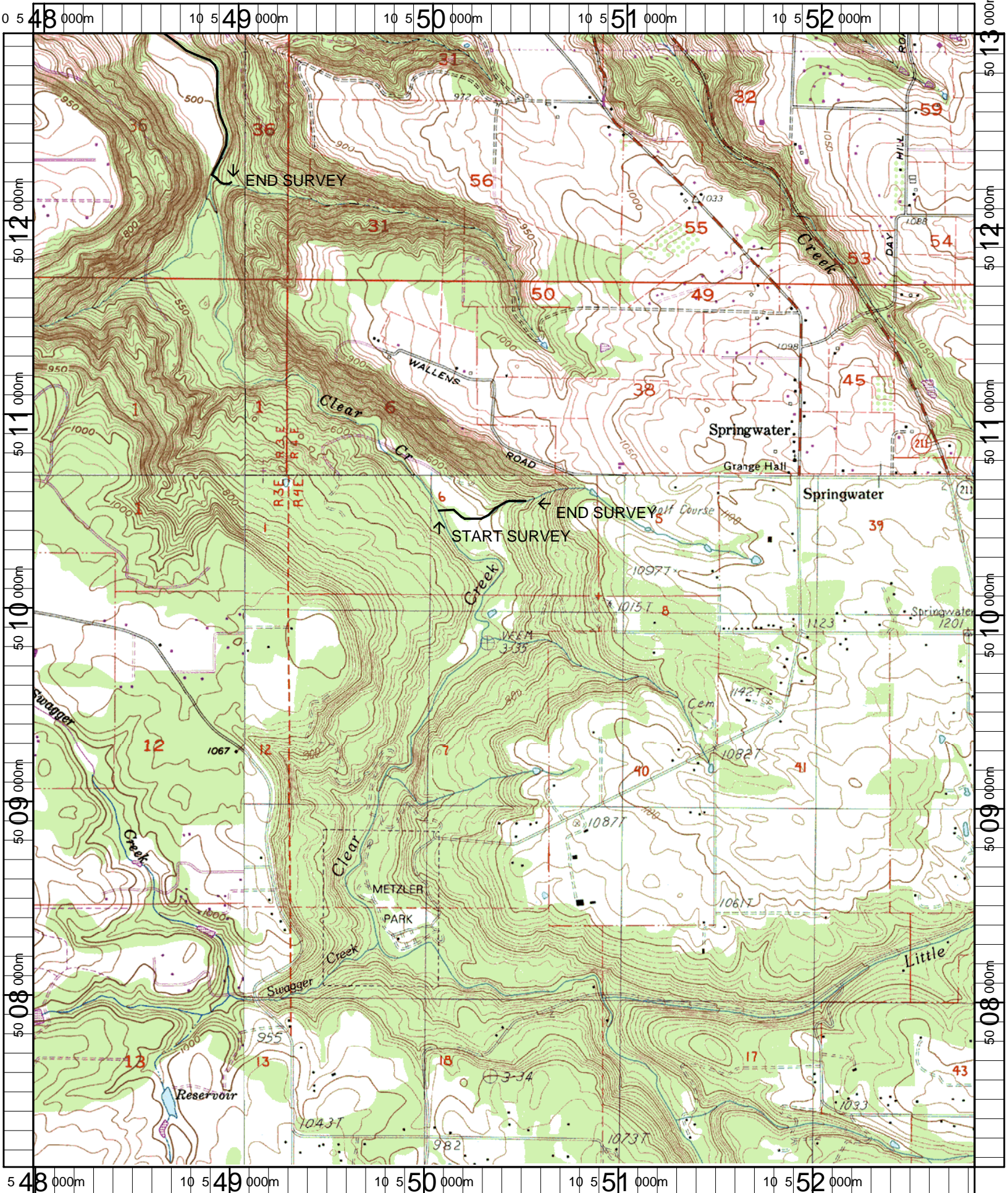
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
9	LT	1	HT	0	70	30	10	Conifer				1		FENCE, END OF ZONE ONE
								Hardwood			1	1		
9	LT	2	HT	0	0	5	95	Conifer						
								Hardwood						
9	LT	3	HT	0	0	0	100	Conifer						AGRICULTURAL FIELD
								Hardwood						
9	RT	1	HT	0	20	10	70	Conifer	6	1				FENCE AT 15 M
								Hardwood	1					
9	RT	2	HT	0	0	0	100	Conifer						
								Hardwood						
9	RT	3	HT	0	0	0	100	Conifer						AGRICULTURAL FIELD
								Hardwood						
15	LT	1	HT	0	35	90	10	Conifer		1				
								Hardwood						
15	LT	2	HT	0	0	5	95	Conifer						
								Hardwood						
15	LT	3	HT	0	0	0	100	Conifer						AGRICULTURAL FIELD
								Hardwood						
15	RT	1	HT	0	0	40	60	Conifer	6					
								Hardwood	1					
15	RT	2	HT	0	0	0	100	Conifer						FIELD
								Hardwood						
15	RT	3	HT	0	0	0	100	Conifer						FIELD
								Hardwood						
22	LT	1	HT	7	40	80	20	Conifer						
								Hardwood	3	2				
22	LT	2	HS	15	15	70	20	Conifer						
								Hardwood	2					
22	LT	3	HS	15	10	70	20	Conifer						
								Hardwood	1					
22	RT	1	HS	38	40	80	20	Conifer	2					
								Hardwood						
22	RT	2	HS	55	50	70	20	Conifer	1					
								Hardwood		1				
22	RT	3	HS	50	65	40	30	Conifer	2					
								Hardwood						

COMMENT SUMMARY

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
3	PP	00	49		SMALL FISH (80MM)
6	SP	00	57		SMALL FISH (80MM)
8	RI	00	107	WL	WOODPECKER
11	DP	00	154.6		SMALL FISH
12	RI	00	179.6	BC	OLD WOODEN BRIDGE IN DIS-REPAIR
14	RI	00	229.6		SHADE PROVIDED BY BUFFER. STREAM CHOKED WITH BRUSH AND BLACKBER
15	RI	00	254.6		COMPLETELY OVERGROWN WITH BLACKBERRY; WALKED ALONG FENCE-LINE
16	PP	00	256.6		SMALL FISH (80-100MM)
17	CC	00	262.5	CC	1.4 W X 1.0 H; NO SUBSTRATE IN CULVERT, DIRT AROUND
18	RI	00	287.5		PULLING TAPE ALONG ROAD.
19	RI	00	312.5		PULLING TAPE ALONG ROAD
23	RB	00	408.5	AM	FROG (CASCADE?)
24	RB	00	433.5		REALLY CHOKED WITH STICKERY BRUSH; GARTER SNAKE
25	RB	00	458.5	WL	CHOKED. HEARD CHICKADEE.
26	CB	00	483.5		CHOKED
27	CB	00	508.5		CHOKED BY BRUSH. ENDED AT STEP OVER BOULDER (.7M)



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