

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

STREAM: Golf Creek (L-33)
BASIN: Clackamas River
SURVEY TYPE: Pre-Tx
DATE: June 30, 2000
SURVEY CREW: David Mann, Talley Fisher
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 523 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 16.4 (range: 10.0 – 20.0). Land use for the reach was agriculture and second growth (15-30 cm dbh) trees. The average unit gradient was 8.4 percent. Rapids (48%) and cascades (31%) dominated stream habitat. Cobble (33%) and gravel (30%) dominated stream substrate. Wood volume was low at 5.0 m³/100m.

COMMENTS:

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

REACH 1

T4S-R4E-S6SW

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 avg: 16.4 range: 10.0-20.0

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	523	707	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	1.5	Width	2.6	4.1	5.0
Depth	0.15	Height	0.4	0.7	0.7
		W:D ratio	6.8	Entrenchment	1.7

Stream Flow Type: LF Water Temp: 15.5-15.5°C
 Avg. Unit Gradient: 8.4% Habitat Units/100m: 10.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	AG	ST
Riparian Vegetation:	M15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	1%	Reach avg: 91%
Undercut Banks	9%	Range: 33-103

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	63	12.0
Volume (m ³)	26	5.0
Key pieces ($\geq 10m \times 0.6m$)	0	0.0

HABITAT UNIT SUMMARY

REACH 1

T4S-R4E-S6SW

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	Cbbl	Bldr	Bdrk
CASCADE/BOULDERS	9	167	1.3	0.20	218	44	8	8	23	40	19	3
CULVERT CROSSING	1	7	1.5	0.10	10	0	30	10	0	30	30	0
GLIDE	1	8	1.4	0.15	11	5	0	32	11	37	21	0
POOL-DAMMED	1	1	2.9	0.20	4	0	59	9	18	14	0	0
POOL-LATERAL SCOUR	14	45	1.8	0.25	73	5	29	14	33	22	2	1
POOL-PLUNGE	3	6	2.4	0.29	15	0	28	14	33	24	0	0
RAPID/BOULDERS	16	244	1.4	0.09	340	14	11	9	33	38	7	2
RIFFLE	3	42	0.7	0.08	33	0	18	10	37	29	2	5
STEP/COBBLE	3	3	1.1	0.05	3	0	7	10	41	42	0	0
STEP/LOG	5	1	1.2	0.02	1	0	18	10	29	38	5	0
Total:	56	523	1.5	0.15	707	68	Avg:18	11	30	33	7	2

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	Boulders #/100m ²
Dammed & BW Pools	1	1	2.9	0.20	4	0.54	0	0.0
Scour Pools	17	51	1.9	0.26	88	12.44	5	5.7
Glides	1	8	1.4	0.15	11	1.49	5	47.6
Riffles	3	42	0.7	0.08	33	4.67	0	0.0
Rapids	16	244	1.4	0.09	340	48.12	14	4.1
Cascades	9	167	1.3	0.20	218	30.80	44	20.2
Step/Falls	8	4	1.2	0.03	4	0.57	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	18	34.4
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	2	3.8
Pool Frequency (channel widths/pool):	11.3	
Residual pool depth (avg)	0.21m	

STREAM SUMMARY

GOLF CREEK (PRE-TX)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
56	523	1.5	0.15	707	18	11	30	33	7	2	68

Habitat Group	Wetted Area	
	(m ²)	Percent
Scour Pool	88	12.4
Backwater Pools	4	0.5
Glide	11	1.5
Riffle	33	4.7
Rapid	340	48.1
Cascade	218	30.8
Step	4	0.6
Dry	0	0.0

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	488
Total conifers/1000 ft	406
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	20

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	0.3	1.7	1.0	1.7	1.7	1.0	3.0	4.3
15-30cm	1.0	0.7	0.7	1.0	0.7	1.3	2.3	3.0
30-50cm	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.0
50-90cm	0.3	0.0	0.0	0.3	0.0	0.3	0.3	0.7
>90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
Total/100m ²	2.3	2.3	2.0	3.0	2.3	2.7	2.2	2.7

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10-20 meters (%)	Zone 3 20-30 meters (%)
Canopy closure	70	38	31
Shrub cover	62	18	2
Grass/forb cover	25	76	92

Predominant landform in each zone

	Zone 1 0-10 meters	Zone 2 10-20 meters	Zone 3 20-30 meters
Hillslope	17	17	17
High terrace	67	67	67
Low terrace	17	17	17
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 (%)	6	7	7

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

Summary of riparian zone (0-100ft) extrapolated to 1,000 feet along stream

Total hardwoods/1000 ft	488
Total conifers/1000 ft	406
Total conifers >20" dbh/1000 ft	41

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	3.0	4.3
15-30cm	2.3	3.0
30-50cm	0.7	0.0
50-90cm	0.3	0.7
>90cm	0.3	0.0

RIPARIAN ZONE VEGETATION

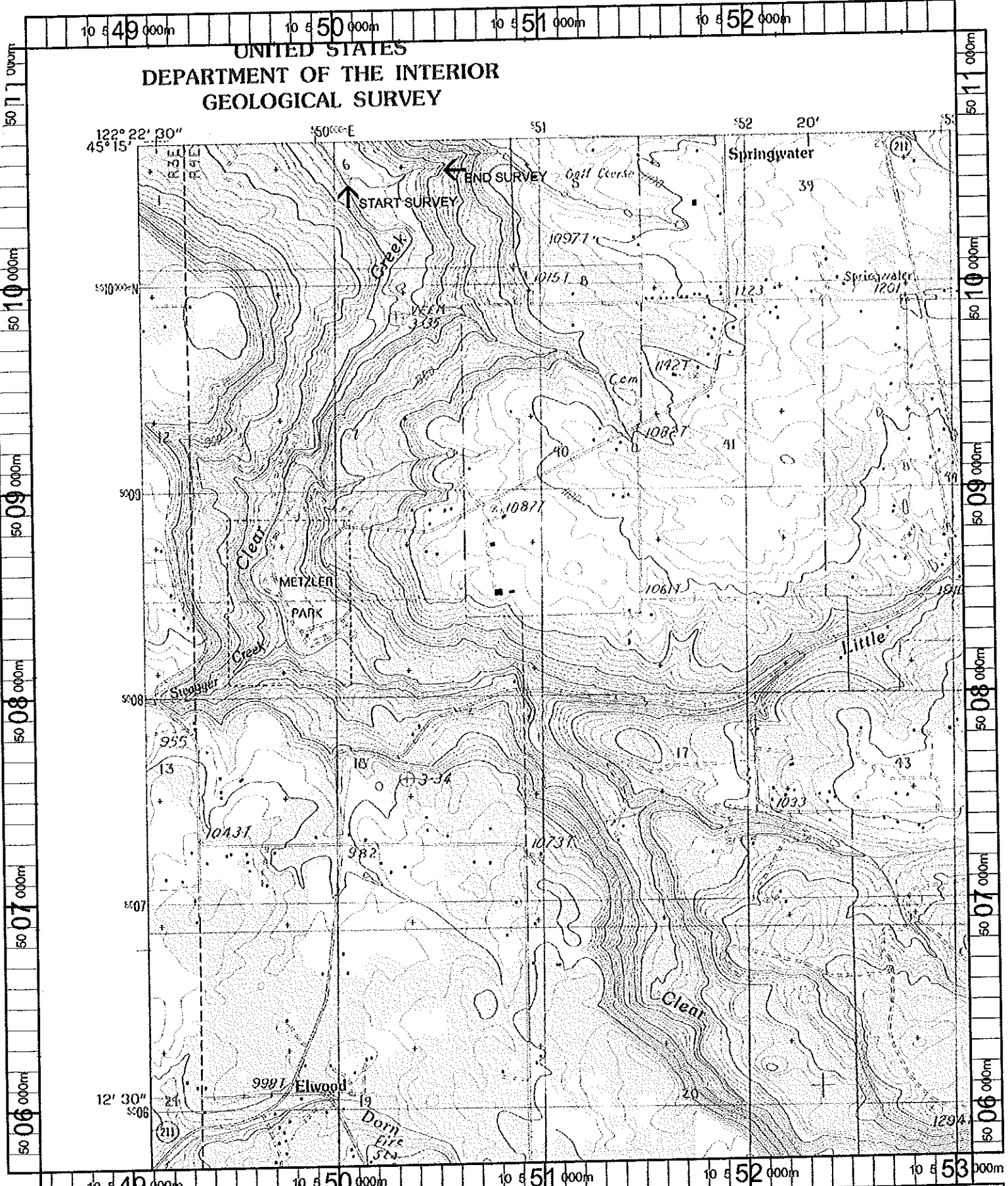
Reach 1

Reach 1

VEGETATION DETAIL

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
13	LF	1	LT	0.0	100	35	25	Conifer	1	2	1	0	0	
								Hardwood	0	1	0	0	0	40% BARE GROUND, CE
13	LF	2	LT	0.0	25	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	BLACKBERRY
13	LF	3	LT	2.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	RT	1	HT	2.0	50	50	20	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	CEDAR, BLACKBERRY
13	RT	2	HT	0.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	RT	3	HT	0.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
34	LF	1	HT	4.0	50	80	20	Conifer	0	1	1	0	0	
								Hardwood	0	0	0	0	0	CEDAR, BLACKBERRY
34	LF	2	HT	0.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	PASTURE
34	LF	3	HT	0.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	PASTURE
34	RT	1	HT	4.0	30	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	BLACKBERRY
34	RT	2	HT	0.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	PASTURE
34	RT	3	HT	0.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	PASTURE
50	LF	1	HT	1.0	95	85	10	Conifer	0	0	0	0	0	
								Hardwood	5	1	0	0	0	BARE GROUND, ALDER,
50	LF	2	HT	5.0	100	15	75	Conifer	0	0	0	0	1	
								Hardwood	5	0	0	0	0	CEDAR
50	LF	3	HT	2.5	85	0	90	Conifer	2	0	0	0	0	
								Hardwood	3	1	0	0	0	10% BARE GROUND, CE
50	RT	1	HS	22.0	95	30	65	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	5% BARE GROUND
50	RT	2	HS	35.0	100	10	60	Conifer	3	2	0	0	0	
								Hardwood	0	3	0	1	0	ALDER, CEDAR
50	RT	3	HS	35.0	100	10	60	Conifer	3	2	0	0	0	
								Hardwood	0	3	0	1	0	30% BARE GROUND, CE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



Name: ELWOOD
 Date: 11/8/100
 Scale: 1 Inch equals 2000 feet

Location: 10 550693 E 5008443 N
 Caption: GOLF CREEK RESTORATION SITE - CLACKAMAS BASIN