

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

STREAM: Clear Creek #1 (L-230)
BASIN: Clackamas River
SURVEY TYPE: Post-Tx
DATE: March 6, 2006
SURVEY CREW: Brian Cannon, Jon Nott
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 185.0 km²
USGS MAPS: Estacada, Elwood
ECOREGION: Willamette Valley Plains

GENERAL DESCRIPTION:

The Clear Creek habitat survey extended 1,049 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.2 (range: 5.0-8.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.7 percent. Riffles (62%) and scour pools (35%) dominated stream habitat. Gravel (36%) and cobble (26%) dominated stream substrate. Wood volume was low at 19.8 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.

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	6.2	VWI Range:	5 - 8

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	1,049	15,538	0
Secondary Channel	0	0	0
Off-Channel Units	86	177	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 12.8	Width: 21.0	46.3 (31 - 70)	47.7 (46 - 51)
Depth: 0.65	Height: 1.0	2.0 (1.8 - 2.5)	4.0 (2 - 6.2)

W:D ratio: 20.7
 Stream Flow Type: MF
 Average Unit Gradient: 0.7%
 Water temperature (°C): 8.5 - 8.5

Entrenchment (ACW:FPW ratio): 2.2
 Habitat Units/100m (total channel length): 2.6
 Habitat Units/100m (primary channel length): 2.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	M30	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):	167	15.9
Volume (m ³):	208	19.8
Key pieces (>=12m x 0.60m):	12	1.1

HABITAT INVENTORY

Report Date: 1/24/2007

Survey Date:

3/6/2006

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
POOL-BACKWATER	2	28	3.4	0.35	93	0	10	25	60	5	0	0
POOL-ISOLATED	1	39	1.5	0.30	59	0	40	20	30	10	0	0
POOL-LATERAL SCOUR	9	393	14.0	1.31	5,495	0	5	16	38	24	3	14
RAPID/BOULDERS	2	26	8.4	0.23	238	0	3	16	48	31	3	0
RIFFLE	13	636	15.5	0.40	9,732	0	3	13	31	33	13	7
STEP/BEDROCK	1	8	0.5	0.05	4	0	0	0	0	0	0	100
STEP/COBBLE	1	5	17.6	0.25	95	0	5	15	50	30	0	0
Total:	29	1,135	12.8	0.65	15,715	0	Avg: 5	15	36	26	7	11

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	67	2.8	0.33	151	0.96%	0	0.0	
Scour Pools	9	393	14.0	1.31	5,495	34.97%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	13	636	15.5	0.40	9,732	61.93%	0	0.0	
Rapids	2	26	8.4	0.23	238	1.51%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	13	9.1	0.15	99	0.63%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

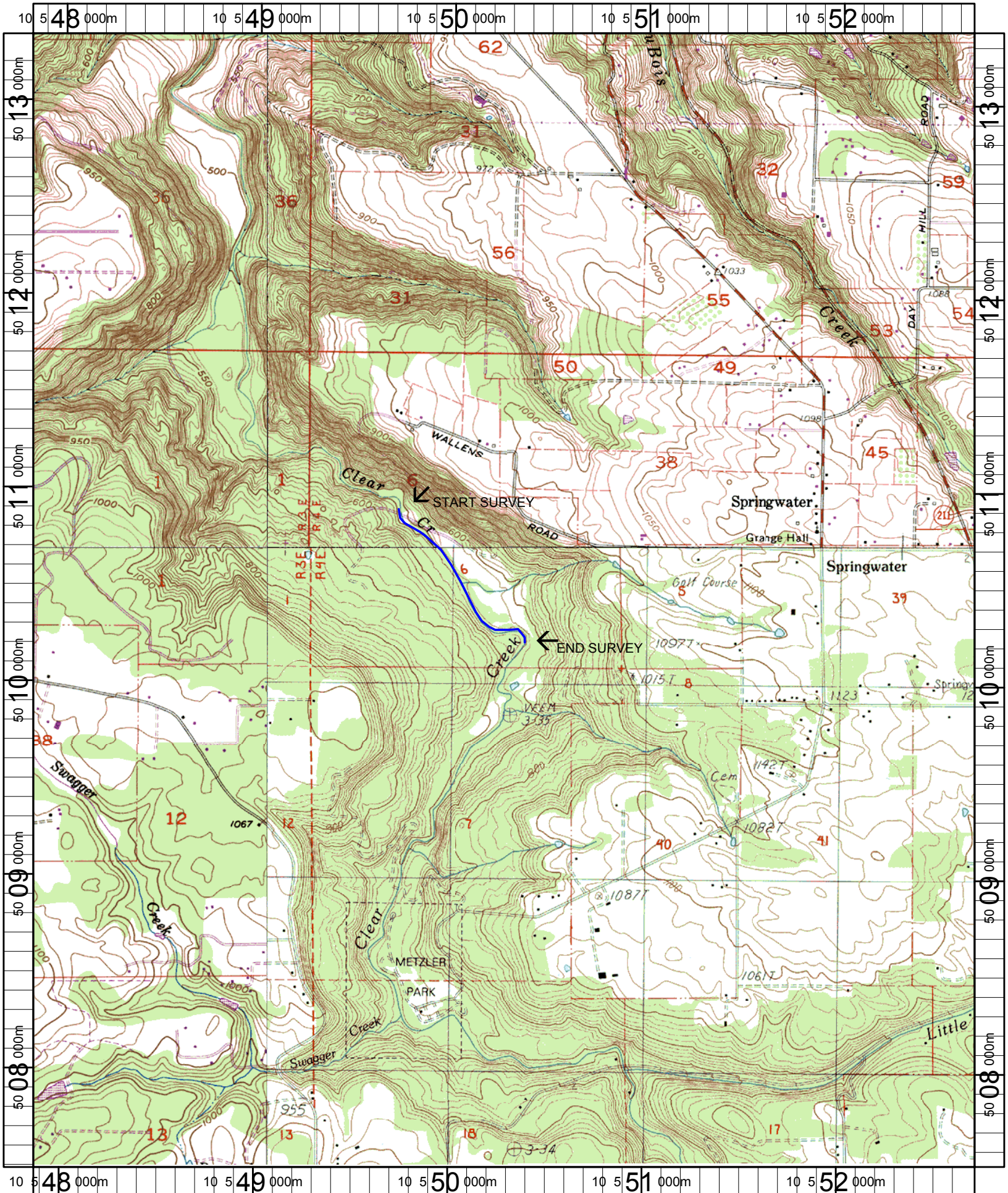
POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	12	10.6	11.4
Pools >=1m deep:	6	5.3	5.7
Complex pools (LWD pieces>=3):	7	6.2	6.7
Pool frequency (channel widths/pool):	4.5		
Residual pool depth (avg):	0.91		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 7-L SITE ID: 230 CLEAR CREEK #1 POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	36.2	BC,HS	HS=3 LOGS, MOVED THIS WINTER	
2	SC	00	41.6		US,MT,C30/S,LT/ST	
3	LP	01	103.6	TJ	OTHER HS LOGS DOWNSTREAM	
4	SR	11	103.6		H=6.0M	
5	RI	00	153.2		T=8.0C AT 1000	
8	LP	00	278		CT-CT, M30/S, LT/ST	
9	RI	00	336.4	SS/		
12	RI	00	495.8	/SS		
13	RI	00	545.8	/SS	CT-CT,M30/S,LT/ST	
14	RI	01	595.8	TJ/		
15	RB	11	595.8	HS	HS=4LOGS, T=8.5C AT 1300	
21	RI	00	824.2	HS		
22	RI	00	849.9	/LA		
23	LP	00	901.9	HS	HS=6LOGS	
24	RB	00	916.3		CA-CT,C30/S,LT/	
29	RI	00	1049.3		US-MT,M15/G,LT	



Name: ELWOOD
 Date: 6/9/2005
 Scale: 1 inch equals 2000 feet

Location: 10 550268 E 5010432 N
 Caption: CLEAR CREEK #1 RESTORATION SITE - CLACKAMAS BASIN