

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 23, 2005
SURVEY CREW: Brian Bangs, Sheila Davis
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 185.0 km²
USGS MAPS: Estacada
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Clear Creek habitat survey extended 1,116 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.9 (range: 3.2-6.5). Land use for the reach was large (30-50 cm dbh) trees and agriculture. The average unit gradient was 0.7 percent. Riffles (50%) and scour pools (46%) dominated stream habitat. Gravel (30%) and cobble (24%) dominated stream substrate. Wood volume was low at 18.6 m³/100m.

COMMENTS:

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

The crew noted habitat structures during the survey.

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.9	VWI Range:	3.2 - 6.5

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	1,116	13,979	0
Secondary Channel	52	226	0
Off-Channel Units	146	239	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 8.2	Width: 18.1	23.4 (17.4 - 31.3)	28.8 (20.3 - 38.1)
Depth: 0.39	Height: 0.5	0.9 (0.9 - 1)	1.9 (1.1 - 4.2)

W:D ratio: 38.2
 Stream Flow Type: MF
 Average Unit Gradient: 0.7%
 Water temperature (°C): 6.5 - 6.5

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 4.9
 Habitat Units/100m (primary channel length): 5.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	AG
Riparian Vegetation:	D30	C50

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):	232	20.8
Volume (m ³):	207	18.6
Key pieces (>=12m x 0.60m):	10	0.9

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

3/23/2005

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/BEDROCK	1	5	0.3	0.05	2	0	10	5	5	1	0	79
POOL-ALCOVE	1	48	1.3	0.50	62	0	67	33	0	0	0	0
POOL-BACKWATER	19	82	1.8	0.19	154	0	21	26	25	20	8	1
POOL-LATERAL SCOUR	15	569	10.5	1.01	6,679	0	13	14	31	22	8	12
RAPID/BOULDERS	3	26	5.8	0.14	125	0	5	5	37	33	15	5
RIFFLE	24	573	12.6	0.23	7,277	0	7	13	33	28	15	5
STEP/COBBLE	1	12	12.4	0.20	145	0	10	10	40	35	5	0
Total:	64	1,314	8.2	0.39	14,444	0	Avg: 13	17	30	24	11	6

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	20	130	1.8	0.20	217	1.50%	0	0.0
Scour Pools	15	569	10.5	1.01	6,679	46.24%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	24	573	12.6	0.23	7,277	50.38%	0	0.0
Rapids	3	26	5.8	0.14	125	0.86%	0	0.0
Cascades	1	5	0.3	0.05	2	0.01%	0	0.0
Step/Falls	1	12	12.4	0.20	145	1.00%	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:	35	26.6	31.4
Pools >=1m deep:	7	5.3	6.3
Complex pools (LWD pieces>=3):	11	8.4	9.9
Pool frequency (channel widths/pool):	2.1		
Residual pool depth (avg):	0.72		

Comment Summary

Restoration Monitoring Sites 2005

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

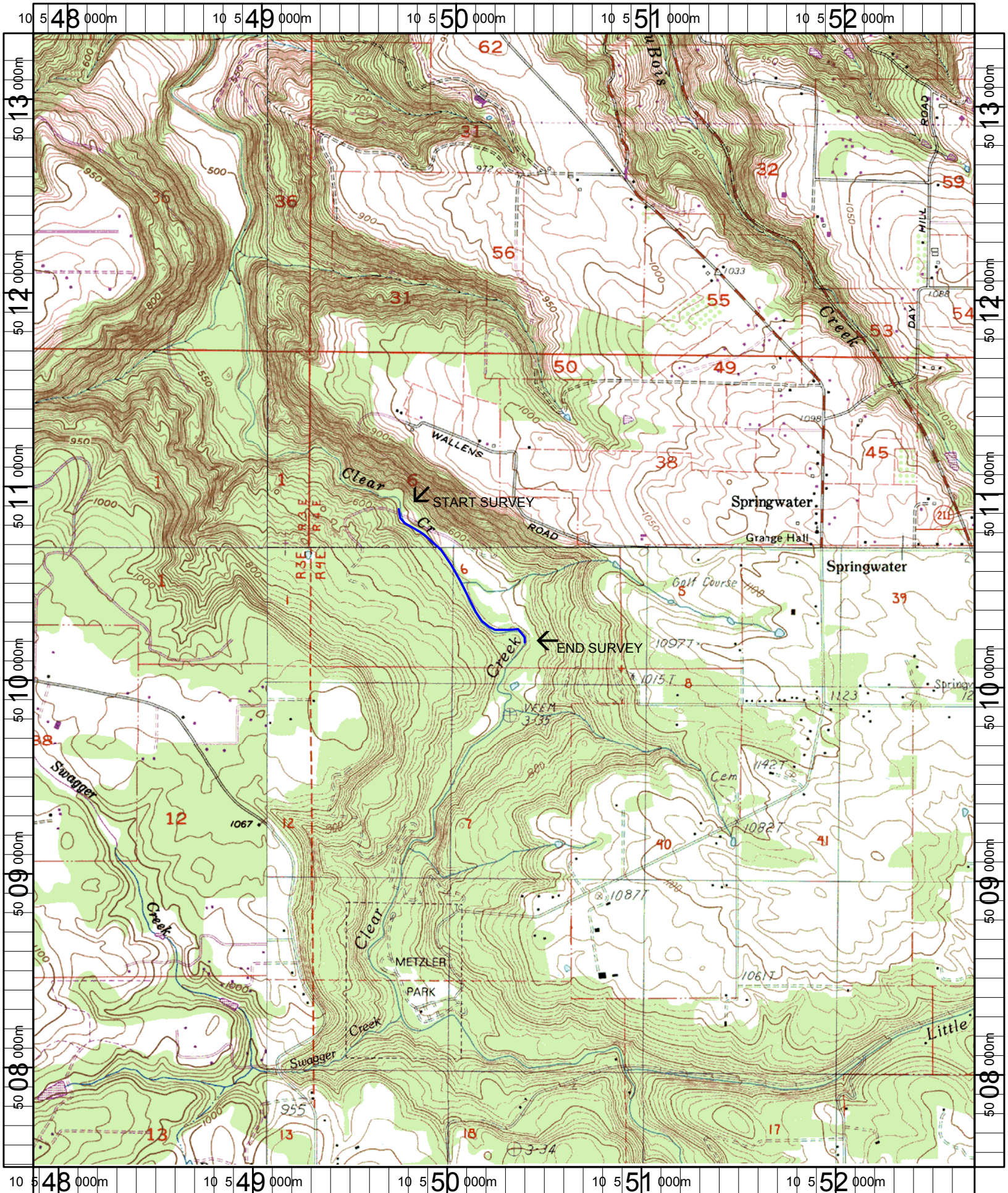
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	38	CS, BC	CT MT D30 G LT ST	
2	RI	00	49.7	DJ, SS	UNID FISH SKELETON	
3	LP	01	138.1	/TJ DJ /SS	CARCASS	
7	LP	00	203.4	BV LA	CARCASS	
8	RI	01	234.6	DJ		
12	LP	00	294.3	DJ	CT MT D30 M15 LT ST	
13	RI	00	319.7	DJ		
15	BW	10	349.3		FRY	
16	LP	00	402.9	DJ		
18	RI	01	451	DJ		
19	BW	10	451		FRY	
20	RI	00	476	DJ		
21	RI	00	501.4		CT MT D30 C30 LT AG	
22	RI	01	525.2	SS/ DJ		
23	BW	10	525.2	DJ	FRY	
26	BW	10	548.6		FRY	
29	LP	01	578.9		FRY	
30	BW	10	578.9		FRY	
31	RI	01	607.3	DJ		
32	RI	11	607.3		SIGN AT TJ, PRE-REST/SPAWN END	
33	BW	10	607.3		FRY	

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
34	LP	00	640.9	DJ BV WL	DEER	
35	RI	01	664.8	DJ		
36	BW	10	664.8		FRY	
37	RI	01	690.3	DJ		
39	RI	01	714.9	DJ		
40	RI	01	739.1	DJ		
42	BW	10	739.1	DJ	FRY	
43	RI	01	764		CA CT C50 D30 MT AG	
44	AL	10	764	DJ	SALAMANDER	
45	RI	00	789.6	DJ		
46	RI	00	812.5	HS DJ		
49	SC	00	845.7	/SS DJ		
50	LP	00	896.9	LA HS /SS		
51	RI	01	927.7	DJ		
52	BW	10	927.7		FRY	
54	BW	10	927.7		FRY	
58	LP	00	987.1	SS/ DJ		
59	RI	01	1008.4	DJ		
62	LP	00	1036.2	DJ		
64	LP	00	1116.4	SS/ DJ	END SIGN AT BEGINNING OF POOL	



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