

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

STREAM: Clear Creek #2 (L-231)
BASIN: Clackamas River
SURVEY TYPE: Post-Tx
DATE: March 25, 2005
SURVEY CREW: Brian Bangs, Sheila Davis
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 185.0 km²
USGS MAPS: Redland
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Clear Creek habitat survey extended 557 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.5 (range: 1.2-3.0). Land use for the reach was mature (50-90 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.1 percent. Riffles (57%) and scour pools (38%) dominated stream habitat. Cobble (25%) and boulders (25%) dominated stream substrate. Wood volume was low at 17.1 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

T03S-R03E-S53SE

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	2.5	VWI Range:	1.2 - 3

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	557	7,314	0
Secondary Channel	0	0	0
Off-Channel Units	34	85	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 11.3	Width: 18.4	22.2 (13.8 - 30.6)	30.0 (22.5 - 34.2)
Depth: 0.43	Height: 0.5	0.9 (0.7 - 1.1)	1.8 (1.25 - 2.7)

W:D ratio: 41.0
 Stream Flow Type: MF
 Average Unit Gradient: 1.1%
 Water temperature (°C): 6.5 - 6.5

Entrenchment (ACW:FPW ratio): 1.2
 Habitat Units/100m (total channel length): 4.7
 Habitat Units/100m (primary channel length): 5.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	LT
Riparian Vegetation:	D30	C30

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):	117	21.0
Volume (m ³):	95	17.1
Key pieces (>=12m x 0.60m):	4	0.7

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

3/25/2005

REACH 1		T03S-R03E-S53SE					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	1	25	8.2	0.65	207	0	0	10	10	10	40	30
POOL-BACKWATER	5	22	2.7	0.15	54	0	15	39	15	17	14	0
POOL-ISOLATED	2	12	2.4	0.25	31	0	54	3	28	10	5	0
POOL-LATERAL SCOUR	6	261	11.2	1.11	2,809	0	11	13	15	20	23	19
RIFFLE	13	268	15.8	0.27	4,233	0	4	8	20	32	34	2
STEP/STRUCTURE	1	4	18.6	0.15	65	0	0	5	25	60	10	0
Total:	28	591	11.3	0.43	7,398	0	Avg: 11	14	18	25	25	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	7	34	2.6	0.18	85	1.14%	0	0.0	
Scour Pools	6	261	11.2	1.11	2,809	37.97%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	13	268	15.8	0.27	4,233	57.21%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	1	25	8.2	0.65	207	2.79%	0	0.0	
Step/Falls	1	4	18.6	0.15	65	0.88%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

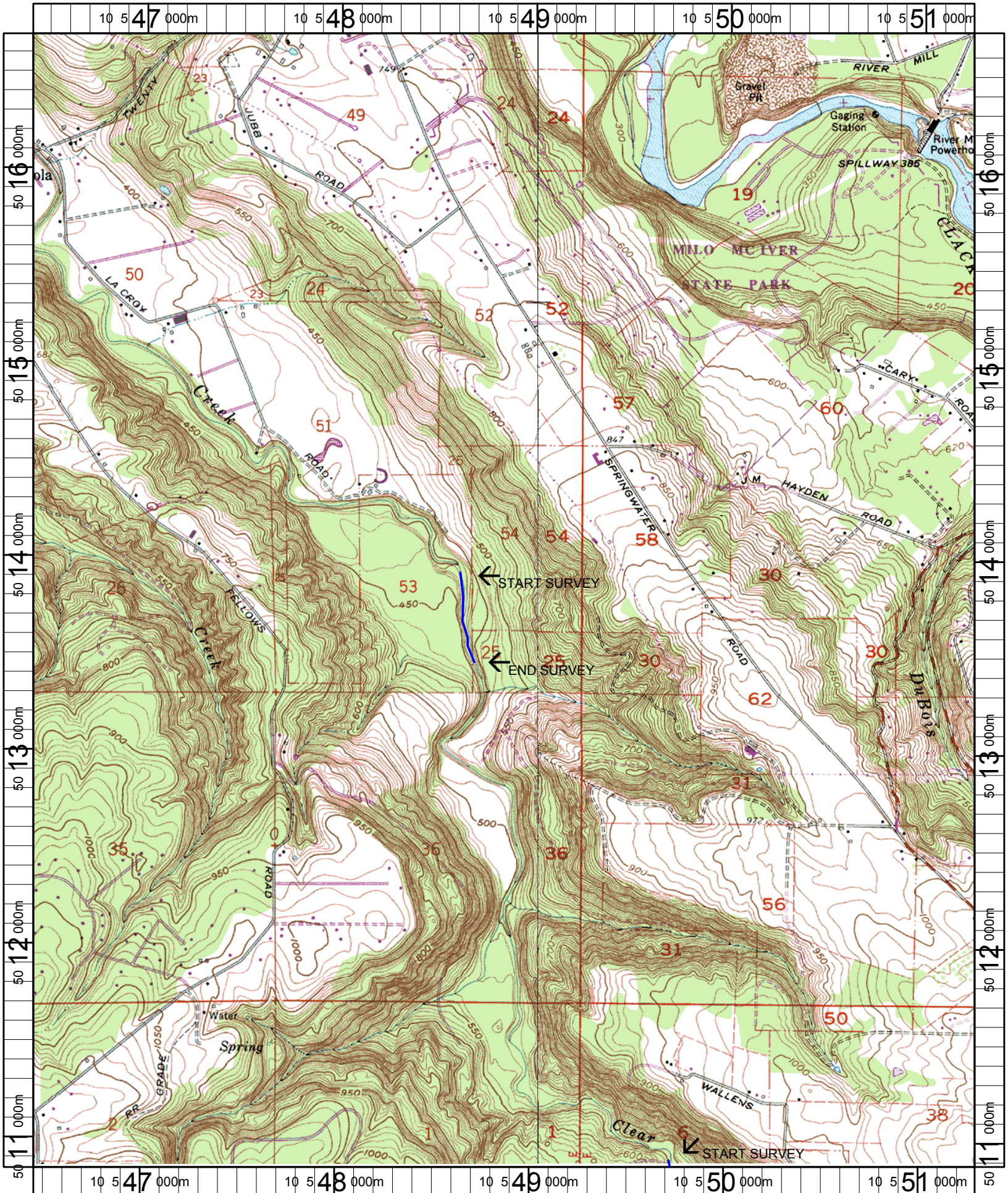
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	<u>Primary Channel Length</u> <u># / Km</u>
All Pools:	13	22.0	23.3
Pools >=1m deep:	4	6.8	7.2
Complex pools (LWD pieces>=3):	6	10.1	10.8
Pool frequency (channel widths/pool):	2.5		
Residual pool depth (avg):	0.76		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 7-L SITE ID: 231 CLEAR CREEK #2 POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	01	23.4	DJ	CT CT D30 G LT MT	
2	BW	10	23.4	DJ	FRY	
3	LP	01	94.2	BV DJ		
5	RI	00	117.3	DJ		
6	RI	01	140.9	DJ	CT MT D30 C30 MT LT	
7	BW	10	140.9		FRY	
8	LP	00	163.7	HS BV	DEAD FISH ON LWD	
10	BW	10	179.3	HS DJ		
11	LP	00	205.9	/SS		
14	RI	00	241.1	DJ		
15	LP	00	288.6	DJ	UNKNOWN ANIMAL SKELETON	
16	RI	00	309	DJ	CA CT C50 D30 MT LT	
17	RI	00	334.2	DJ SS/		
19	SS	00	344.5	RF	SUBMERGED CEMENT SLABS W/COBBL	
20	RI	01	369.4	DJ		
22	RI	01	394.7	DJ	CA CT C90 C30 MT LT	
24	RI	00	420.1	DJ		
25	RI	00	438.8	DJ		
26	LP	00	501.7	/SS SS/ BV	FRY	
27	LP	00	532	DJ		
28	CB	00	557.2		CH SV C30 M15 MT LT	



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

Location: 10 548850 E 5013787 N
 Caption: CLEAR CREEK #2 RESTORATION SITE - CLACKAMAS BASIN