

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 8, 2006
SURVEY CREW: Brian Cannon, Jon Nott
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 185.0 km²
USGS MAPS: Redland
ECOREGION: Willamette Valley Plains

GENERAL DESCRIPTION:

The Clear Creek habitat survey extended 511 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.6 (range: 1.4-4.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Riffles (41%) and scour pools (36%) dominated stream habitat. Cobble (32%) and gravel (28%) dominated stream substrate. Wood volume was moderate at 22.5 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

T03S-R03E-S53NE

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.6	VWI Range:	1.4 - 4

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	511	7,666	0
Secondary Channel	0	0	0
Off-Channel Units	10	6	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 14.7	Width: 19.9	31.8 (17 - 55)	31.0 (27 - 35)
Depth: 0.60	Height: 1.2	2.4 (2 - 3)	3.5 (2.9 - 4)

W:D ratio: 17.3
 Stream Flow Type: MF
 Average Unit Gradient: 0.9%
 Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 1.5
 Habitat Units/100m (total channel length): 3.5
 Habitat Units/100m (primary channel length): 3.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	C30	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):	82	16.1
Volume (m ³):	115	22.5
Key pieces (>=12m x 0.60m):	6	1.2

HABITAT INVENTORY

Report Date: 1/24/2007

Survey Date:

3/8/2006

REACH 1		T03S-R03E-S53NE					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	10	0.6	0.01	6	0	10	40	20	30	0	0
POOL-LATERAL SCOUR	4	211	13.3	1.28	2,724	0	3	15	30	20	9	24
RAPID/BOULDERS	5	117	15.3	0.48	1,834	0	0	11	20	34	28	7
RIFFLE	8	183	16.8	0.40	3,108	0	2	12	32	36	17	0
Total:	18	521	14.7	0.60	7,672	0	Avg: 2	14	28	32	18	7

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	0	0			0	0.00%	0	0.0	
Scour Pools	4	211	13.3	1.28	2,724	35.51%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	8	183	16.8	0.40	3,108	40.51%	0	0.0	
Rapids	5	117	15.3	0.48	1,834	23.90%	0	0.0	
Cascades	1	10	0.6	0.01	6	0.08%	0	0.0	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

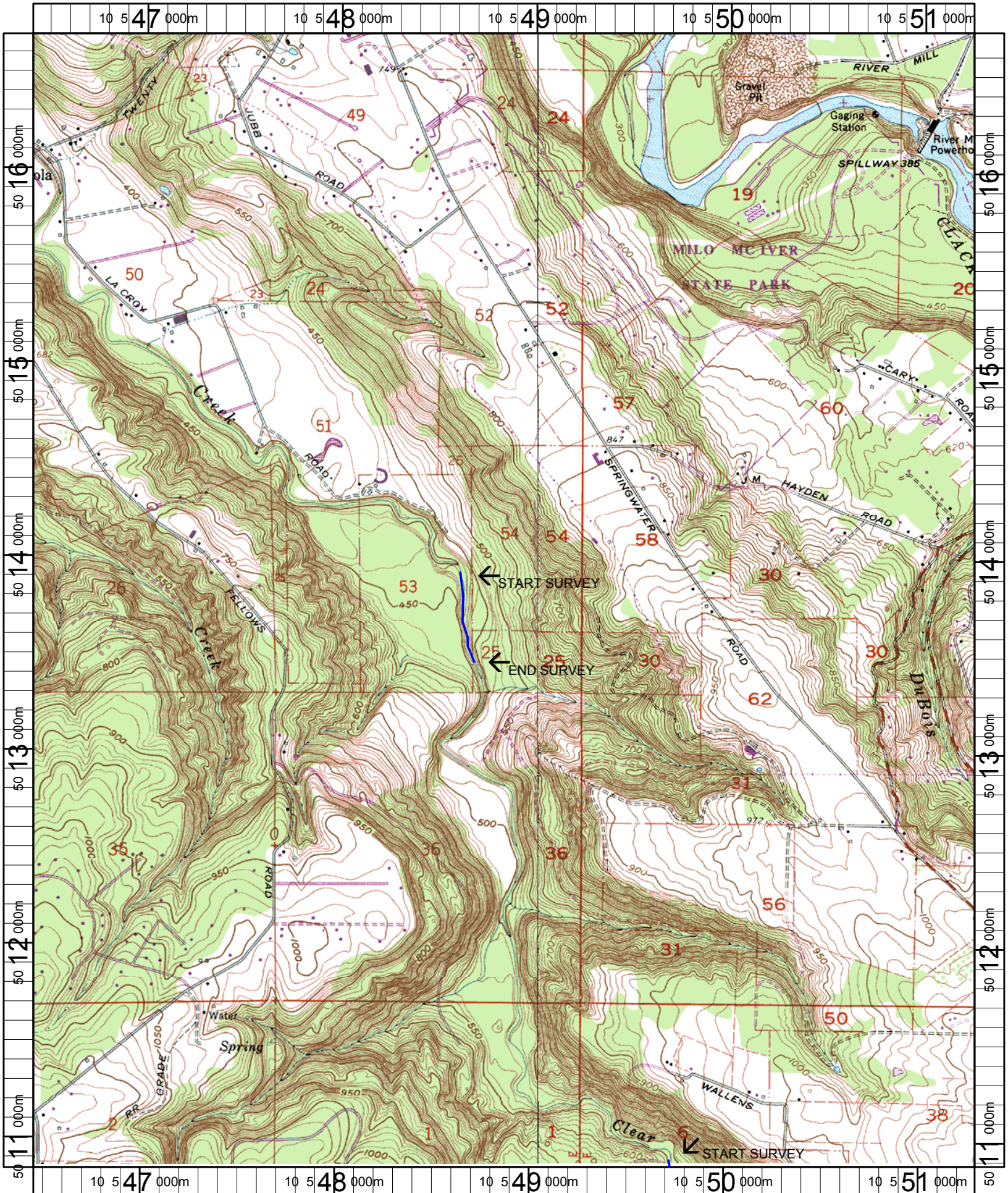
POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	4	7.7	7.8
Pools >=1m deep:	4	7.7	7.8
Complex pools (LWD pieces>=3):	4	7.7	7.8
Pool frequency (channel widths/pool):	6.5		
Residual pool depth (avg):	0.79		

Comment Summary

Restoration Monitoring Sites 2006

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	21		CT-CT,D30/S,LT	
2	LP	00	69	BV		
3	RI	00	96		T=9.0C	
4	RI	00	115	HS	HS=1 LOG	
5	LP	00	144		HS BLEW OUT	
6	RI	01	169	HS, TJ/	HS=2 LOGS + BOULDERS	
7	CB	11	169		CH-MV,M30/S,LT	
10	LP	00	262		CA-CT,M30/S,LT	
13	RB	00	338	RF		
15	RB	00	387.6		CH-MV,C30/S,LT/ST	
18	RB	00	510.6		CH-MV,C30/S,LT/ST	



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