

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

STREAM: Clear Creek #2 (L-231)
BASIN: Clackamas River
SURVEY TYPE: Pre-Tx
DATE: July 27, 2004
SURVEY CREW: Erin Richmond, Jeff Snyder
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 484 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 2.4 (range: 1.0-4.7). Land use for the reach was large (30-50 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 0.8 percent. Riffles (45%) and scour pools (33%) dominated stream habitat. Cobble (35%) and boulders (32%) dominated stream substrate. Wood volume was low at 12.0 m³/100m.

COMMENTS:

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

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.4	VWI Range:	1 - 4.7

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	484	4,883	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 4
Width: 10.2	Width: 19.3	24.9 (19.6 - 35)	33.1 (25 - 39)
Depth: 0.56	Height: 0.7	1.3 (1.1 - 1.6)	3.5 (1.6 - 6)

W:D ratio: 30.1

Stream Flow Type: LF

Average Unit Gradient: 0.8%

Water temperature (°C): 16.5 - 16.5

Entrenchment (ACW:FPW ratio): 1.4

Habitat Units/100m (total channel length): 3.9

Habitat Units/100m (primary channel length): 3.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	MT
Riparian Vegetation:	M30	M50

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 78%
Undercut Banks:	2%	Range: 56 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	58	12.0
Volume (m ³):	58	12.0
Key pieces (>=12m x 0.60m):	3	0.6

OREGON DEPARTMENT OF FISH AND WILDLIFE

CLEAR CREEK #2 PRE-TX (L-231)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/27/2004

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
GLIDE	3	80	10.8	0.37	865	76	0	0	9	63	28	0
POOL-LATERAL SCOUR	6	169	9.5	1.05	1,624	102	4	18	29	21	15	13
RIFFLE	3	72	8.5	0.20	616	280	0	10	13	53	23	0
RIFFLE W/ POCKETS	6	149	10.6	0.42	1,580	468	0	2	18	27	53	0
STEP/COBBLE	1	13	15.0	0.20	200	60	0	10	10	30	50	0
Total:	19	484	10.2	0.56	4,883	986	Avg: 1	8	19	35	32	4

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	6	169	9.5	1.05	1,624	33.25%	102	6.3
Glides	3	80	10.8	0.37	865	17.71%	76	8.8
Riffles	9	221	9.9	0.34	2,195	44.95%	748	34.1
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	1	13	15.0	0.20	200	4.09%	60	30.1
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	6	12.4	12.4
Pools >=1m deep:	4	8.3	8.3
Complex pools (LWD pieces>=3):	3	6.2	6.2
Pool frequency (channel widths/pool):	4.2		
Residual pool depth (avg):	0.77		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	406
Total conifers/1000 ft	569
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	0

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	0.3	0.3	0.0	0.0	0.7	2.0
15-30cm	1.3	1.0	1.7	0.7	1.3	1.7	4.3	3.3
30-50cm	0.3	0.3	1.0	0.3	1.7	0.3	3.0	1.0
50-90cm	0.3	0.0	1.0	0.3	0.0	0.0	1.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.3	3.0	4.0	1.7	3.0	2.0	3.1	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	82		78		68	
Shrub cover	35		35		42	
Grass/forb cover	25		25		25	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	67		67		50	
High terrace	33		33		50	
Low terrace	0		0		0	
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 (%)	47		43		38	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

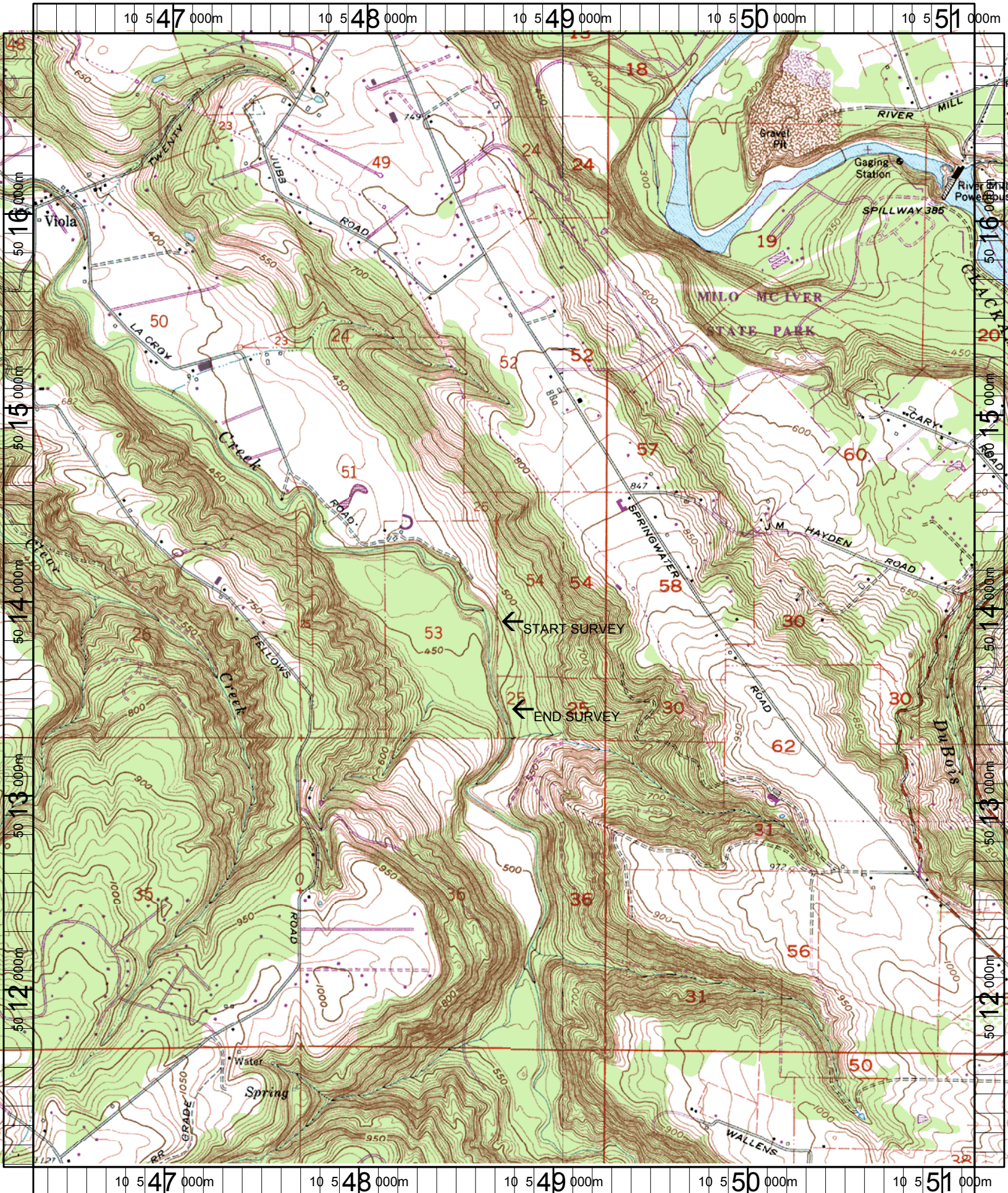
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
6	LF	1	HS	22	90	40	10	Conifer		2					
								Hardwood		1					
6	LF	2	HS	25	90	40	20	Conifer	1						
								Hardwood							
6	LF	3	HT	8	50	70	20	Conifer							
								Hardwood		4					
6	RT	1	HS	24	80	50	20	Conifer				1			
								Hardwood	1						
6	RT	2	HT	15	70	50	20	Conifer			1				
								Hardwood	1						
6	RT	3	HT	11	50	60	20	Conifer							
								Hardwood							
10	LF	1	HT	70	80	40	20	Conifer		2					
								Hardwood							
10	LF	3	HT	11	50	60	40	Conifer				2			
								Hardwood				1			
10	RT	1	HT	12	70	40	60	Conifer							
								Hardwood	1	2	1				
10	LF	2	HT	11	50	60	40	Conifer		1					
								Hardwood							
10	RT	3	HS	46	90	20	30	Conifer		1	2				ROAD BED
								Hardwood		1					
10	RT	2	HS	50	90	20	30	Conifer				1			
								Hardwood		1			1		
15	LF	3	HS	70	80	30	10	Conifer		2	1				
								Hardwood							
15	RT	1	HS	84	90	10	30	Conifer					1		
								Hardwood							
15	LF	1	HS	70	80	30	10	Conifer	1						
								Hardwood	3						
15	RT	3	HS	84	90	10	30	Conifer		1					
								Hardwood							
15	LF	2	HS	70	80	30	10	Conifer		3	2				
								Hardwood	1						
15	RT	2	HS	84	90	10	30	Conifer					3		
								Hardwood			1				

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L SITE ID: 231 CLEAR CREEK #2 PRE-TX (L-231)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	25.2		T=16 DEG C AT 9:45	COHO
2	LP	00	62.6		COHO FRY-25	CLAY HARDPAN-COHO
3	RI	00	87.6		CRAYFISH, BRAIDED CH	BRAIDED CHANNEL
4	RI	00	109.6	WL		KING FISHER
5	LP	00	135.1			CLAY HARDPAN
6	SC	00	148.4		METRICS AND RIP 1	METRICS AND RIP
7	GL	00	178.4		CO FRY- 15	UNIFORM SYMMETRY
8	RI	00	203.4	WL	CRAYFISH	DIPPER
9	LP	00	249.8	WL		DIPPER
10	RP	00	274.8		METRICS AND RIP 2	M/R AT 250 M
11	RP	00	299.8	/DJ		
12	RP	00	324.8	RF		PHOTO 102
13	RP	00	349.8	DJ	BRAIDED CHANNEL	
14	RP	00	380.8	DJ	BRAIDED CHANNEL	
15	GL	00	405.8	WL	METRICS, RIP 3	M/R 3
16	GL	00	430.8	WL	CRAYFISH	GAME TRAIL
17	LP	00	447.1		CO FRY-20	
18	LP	00	465.4			PHOTO 101
19	RP	00	483.6		END OF SURVEY	END SURVEY



Name: REDLAND
 Date: 8/10/2004
 Scale: 1 inch equals 2000 feet

Location: 10 548719 E 5014027 N
 Caption: CLEAR CREEK #2 RESTORATION SITE - CLACKAMAS BASIN