

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

STREAM: Clear Creek #7 (L-360)
BASIN: Clackamas River
SURVEY TYPE: Pre-Tx
DATE: June 13, 2007
SURVEY CREW: Jeremy Romer, Kara Anlauf, Sharon Tippery
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 81.1 km²
USGS MAPS: Elwood
ECOREGION: Willamette Valley Plains

GENERAL DESCRIPTION:

The Clear Creek habitat survey extended 1,036 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 6.6 (range: 5.0-9.0). Land use for the reach was greenway (Metzler County Park). The average unit gradient was 1.3 percent. Scour pools (41%) and riffles (30%) dominated stream habitat. Gravel (41%) and cobble (27%) dominated stream substrate. Wood volume was very low at 4.0 m³/100m.

COMMENTS:

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

REACH 1

T04S-R04E-S07SW

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	6.6	VWI Range:	5 - 9

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	1,036	13,616	1
Secondary Channel	42	66	1
Off-Channel Units	43	189	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 10.9	Width: 16.9	21.3 (17.5 - 26)	22.9 (18 - 28)
Depth: 0.55	Height: 0.6	1.1 (1.1 - 1.2)	2.4 (1.6 - 4)

W:D ratio: 29.8
 Stream Flow Type: MF
 Average Unit Gradient: 1.3%
 Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 3.6
 Habitat Units/100m (primary channel length): 3.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	GN	
Riparian Vegetation:	C30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 75%
Undercut Banks:	1%	Range: 56 - 92

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	108	10.4
Volume (m ³):	42	4.0
Key pieces (>=12m x 0.60m):	0	0.0

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

6/13/2007

REACH 1		T04S-R04E-S07SW					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	20	8.0	0.10	160	30	0	0	14	14	71	0
DRY UNIT	1	14	0.8	0.00	11	0	22	11	11	56	0	0
POOL-BACKWATER	1	8	1.1	0.30	9	0	24	5	14	29	29	0
POOL-DAMMED	1	50	17.0	0.90	850	20	0	0	45	27	23	5
POOL-LATERAL SCOUR	15	484	9.8	1.14	5,557	37	8	12	40	19	7	15
POOL-PLUNGE	1	7	9.0	0.80	62	1	0	11	26	42	16	5
PUDDLED UNIT	1	11	0.5	0.02	6	0	0	0	80	20	0	0
RAPID/BOULDERS	4	152	14.5	0.18	2,172	94	0	1	31	33	33	1
RIFFLE	8	306	12.8	0.18	4,203	58	0	1	52	32	15	0
STEP/BEDROCK	1	10	8.0	0.00	81	2	0	0	20	20	20	40
STEP/COBBLE	5	59	12.7	0.13	754	25	0	2	42	34	18	3
STEP/STRUCTURE	1	0	20.0	0.10	6	0	0	0	70	30	0	0
Total:	40	1,121	10.9	0.55	13,871	267	Avg: 4	6	41	27	15	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	2	58	9.1	0.60	859	6.19%	20	2.3	
Scour Pools	16	490	9.7	1.12	5,619	40.51%	38	0.7	
Glides	0	0			0	0.00%	0	0.0	
Riffles	8	306	12.8	0.18	4,203	30.30%	58	1.4	
Rapids	4	152	14.5	0.18	2,172	15.66%	94	4.3	
Cascades	1	20	8.0	0.10	160	1.15%	30	18.8	
Step/Falls	7	69	13.1	0.11	841	6.06%	27	3.2	
Dry	2	25	0.7	0.01	17	0.12%	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:	18	16.1	17.4
Pools >=1m deep:	11	9.8	10.6
Complex pools (LWD pieces>=3):	8	7.1	7.7
Pool frequency (channel widths/pool):	3.7		
Residual pool depth (avg):	0.88		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

CLEAR CREEK #7 PRE-TX
GCG: 7-L SITE ID: 360

Survey Date 6/13/2007
Report Date: 11/7/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	244
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	20

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	0.0	0.3	0.0	0.0	0.0	0.7	0.0	1.0
15-30cm	0.3	2.0	0.0	0.0	0.7	0.7	1.0	2.7
30-50cm	0.3	0.0	0.7	0.0	0.7	0.0	1.7	0.0
50-90cm	0.3	0.0	0.7	0.3	0.0	0.0	1.0	0.3
>90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
Total/100m2	1.0	2.3	1.7	0.3	1.3	1.3	1.3	1.3

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	68	67	61
Shrub cover	40	38	51
Grass/forb cover	60	32	16

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	33	33	33
High terrace	50	67	67
Low terrace	0	0	0
Floodplain	17	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	0
Riprap	0	0	0
Surface slope (%)	20	17	18

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	244
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	20

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	1.0
15-30cm	1.0	2.7
30-50cm	1.7	0.0
50-90cm	1.0	0.3
>90cm	0.3	0.0

RIPARIAN ZONE VEGETATION

Reach 1

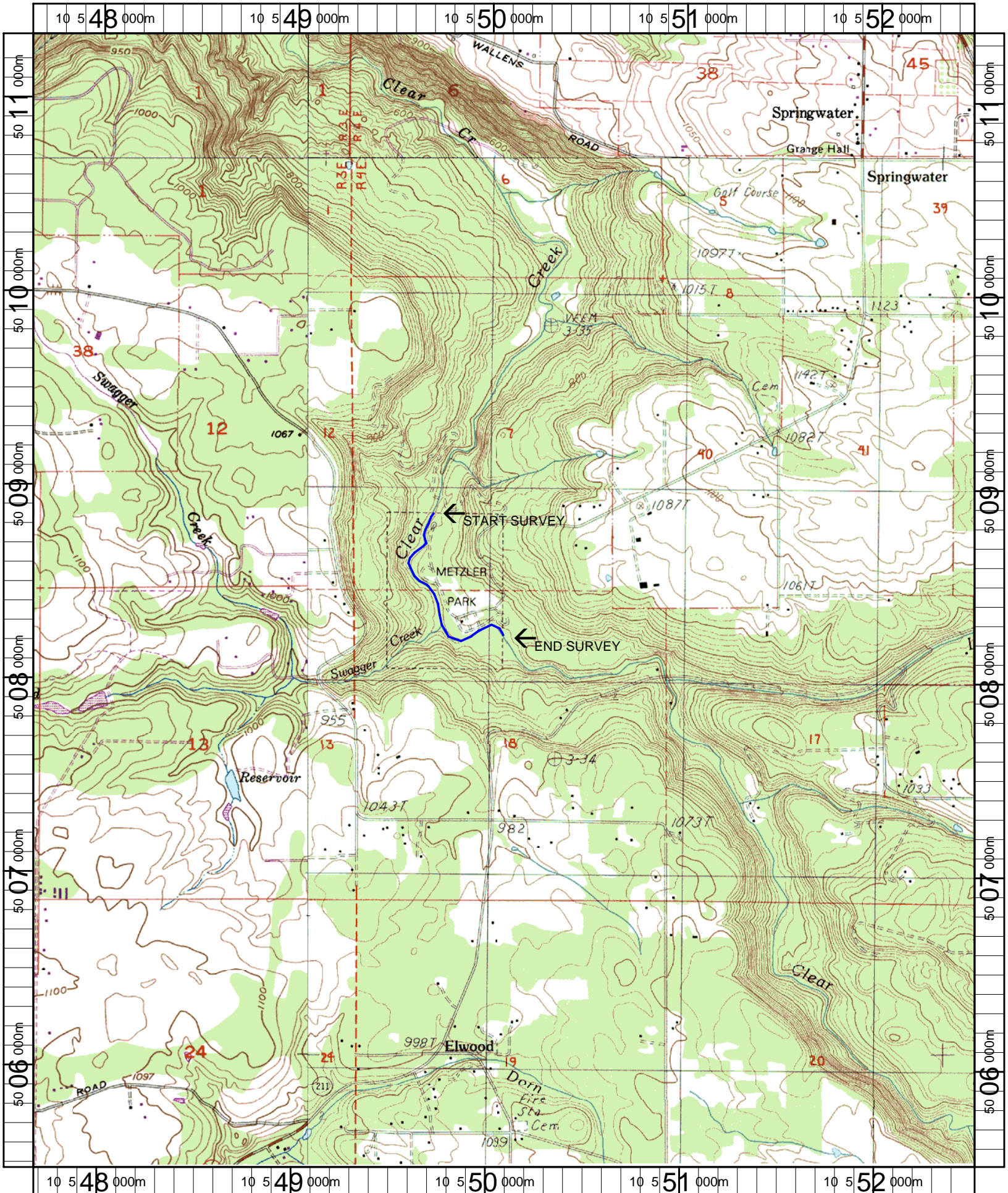
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)			Diameter class (cm)					Notes	
					Canopy	Shrub	Grass	3-15	15-30	30-50	50-90	>90		
10	LT	1	FP	22	75	15	85	Conifer					1	
								Hardwood	1	3				
10	LT	2	HT	0	80	5	10	Conifer			1	2		CAMP SITE 32
								Hardwood						
10	LT	3	HT	0	60	0	0	Conifer			2			1/2 ROADBED
								Hardwood						
10	RT	1	HS	85	50	70	30	Conifer						
								Hardwood						
10	RT	2	HS	85	55	80	20	Conifer						
								Hardwood						
10	RT	3	HS	80	70	80	20	Conifer		1				
								Hardwood		1				
16	LT	1	HT	0	70	10	90	Conifer						
								Hardwood						
16	LT	2	HT	0	75	5	95	Conifer						
								Hardwood				1		
16	LT	3	HT	15	65	50	50	Conifer						
								Hardwood		1				
16	RT	1	HS	10	90	40	60	Conifer		1	1			
								Hardwood		2				
16	RT	2	HS	15	90	40	60	Conifer			1			
								Hardwood						
16	RT	3	HS	15	90	75	25	Conifer			1			
								Hardwood	2					
29	LT	1	HT	0	50	15	85	Conifer						
								Hardwood						
29	LT	2	HT	0	25	0	0	Conifer						1 RANGER OFFICE
								Hardwood						PARKING LOT
29	LT	3	HT	0	0	0	0	Conifer						DITTO
								Hardwood						
29	RT	1	HT	0	70	90	10	Conifer						
								Hardwood		1				
29	RT	2	HT	0	75	95	5	Conifer						
								Hardwood						
29	RT	3	HT	0	80	100	0	Conifer						
								Hardwood						

COMMENT SUMMARY

MONITORING AREA: 7-L SITE ID: 360 STREAM: CLEAR CREEK #7 PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
3	LP	00	116.6		CTCT C30G GN
7	LP	00	216.3	/SS	BEDROCK IS HARDPAN
8	SR	00	226.4	WL	DIPPER, KINGFISHER, 13IN CUTTHROAT
10	RB	00	296.6	/SS	CROW
11	RI	00	333.6	/SS	
12	DP	00	383.6	/SS	
18	BW	10	560.2		FISH
21	SS	00	596		CONCRETE DAM NO FLUME BOARDS,
22	RI	01	646	BC, /TJ	SGS SIGN
23	CB	11	646		SWAGGER CR T=14 ACW=7
26	LP	02	744.5	WL	SALMONIDS, JUVENILE
28	LP	02	744.5		JUVENILE SALMONIDS
31	LP	01	875.5	/TJ	END SGS LITTLE CEDAR CR
32	RI	11	875.5	WL	TRIB PGS ACW=3.5, T=13
34	LP	02	888.5	SS/, AM	RLF
40	RI	00	1035.5		END



Name: ELWOOD
 Date: 1/3/2007
 Scale: 1 inch equals 2000 feet

Location: 10 550075 E 5008417 N
 Caption: CLEAR CREEK #7 RESTORATION SITE - CLACKAMAS BASIN