

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

STREAM: Miller Creek (L-193)
BASIN: Clatskanie River
SURVEY TYPE: Pre-Tx
DATE: March 16, 2004
SURVEY CREW: Jim Andrews, April Waters
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 13.0 km²
USGS MAPS: Clatskanie
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Miller Creek habitat survey extended 556 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.4 (range: 2.5-4.9). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 3.8 percent. Rapids (57%) dominated stream habitat. Gravel (42%) and cobble (33%) dominated stream substrate. Wood volume was low at 17.6 m³/100m.

COMMENTS:

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

REACH 1

T07N-R04W-S35SW

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	4.4	VWI Range:	2.5 - 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	556	2,361	0
Secondary	62	65	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 3.7	Width: 6.6	11.6 (5.8 - 17.5)	11.0 (6.3 - 15)
Depth: 0.36	Height: 0.5	0.9 (0.9 - 1)	1.3 (1.1 - 1.4)

W:D ratio: 14.1

Stream Flow Type: MF

Avg. Unit Gradient: 3.8%

Entrenchment (ACW:FPW ratio): 1.7

Water temp (°C): 8.8 - 8.8

Habitat Units/100m: 6.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	D15	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</u>
All pieces (>=3m x 0.15m):	55	9.9
Volume (m ³):	98	17.6
Key pieces (>=10m x 0.60m):	10	1.8

OREGON DEPARTMENT OF FISH AND WILDLIFE

MILLER CREEK PRE-TX (L-193)

HABITAT INVENTORY

Report Date: 6/16/2004

Survey Date:

3/16/2004

REACH 1		T07N-R04W-S35SW					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	4	0.3	0.02	1	0	5	0	29	0	0	67	
CASCADE/BOULDERS	6	103	3.8	0.33	423	0	3	7	27	39	21	3	
CULVERT CROSSING	1	38	1.1	0.30	42	0	0	5	29	57	10	0	
POOL-BACKWATER	1	3	3.6	0.40	11	0	70	15	5	5	5	0	
POOL-LATERAL SCOUR	6	52	4.3	0.73	304	0	3	7	39	41	7	3	
POOL-PLUNGE	1	8	6.0	0.75	48	0	0	5	60	30	5	0	
RAPID/BOULDERS	14	322	4.2	0.29	1,385	0	0	5	45	34	14	1	
RIFFLE	5	86	2.6	0.22	203	0	2	6	60	27	4	1	
STEP/BEDROCK	1	1	2.0	0.10	2	0	5	5	16	5	0	68	
STEP/LOG	1	2	3.5	0.20	7	0	0	0	70	30	0	0	
Total:	37	619	3.7	0.36	2,426	0	Avg: 4	6	42	33	11	5	

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	1	3	3.6	0.40	11	0.45%	0	0.0	
Scour Pools	7	60	4.6	0.74	352	14.52%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	5	86	2.6	0.22	203	8.37%	0	0.0	
Rapids	14	322	4.2	0.29	1,385	57.08%	0	0.0	
Cascades	7	107	3.3	0.28	424	17.48%	0	0.0	
Step/Falls	2	3	2.8	0.15	9	0.37%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	38	1.1	0.30	42	1.72%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	<u># / Km</u>	
All Pools:	8	12.9	62
Pools >=1m deep:	1	1.6	
Complex pools (LWD pieces>=3):	1	1.6	
Pool frequency (channel widths/pool):	11.6		
Residual pool depth (avg):	0.49		

STREAM SUMMARY

MILLER CREEK PRE-TX (L-193)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
37	619	3.7	0.36	2,426	4	6	42	33	11	5	

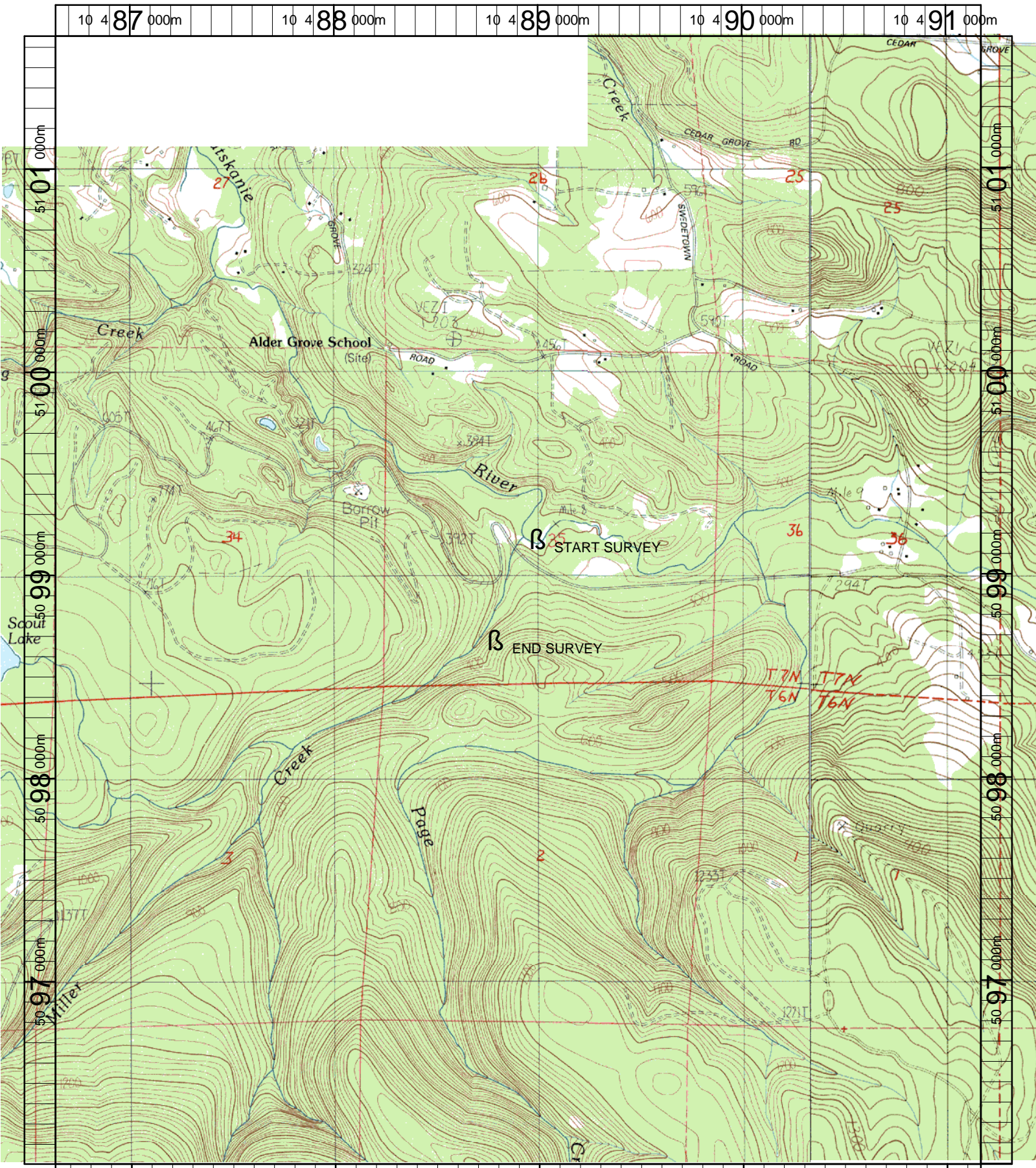
Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	11	0.45%
Scour Pools	352	14.52%
Glides	0	0.00%
Riffles	203	8.37%
Rapids	1,385	57.08%
Cascades	424	17.48%
Step/Falls	9	0.37%
Dry	0	0.00%
Culverts	42	1.72%

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L SITE ID: 193 MILLER CREEK PRE-TX (L-193)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	LP	00	30.5		HP	
3	CC	00	68.5	CC	RD FILL	
6	RB	00	146.5	2-/SS		
7	RB	00	160.7	/SS		
9	SL	00	170.7		H=0.3M	
10	RB	00	196	BV		
11	RI	00	217.1	BV, SS/		
15	RB	00	283.2	WL	GAME TRAIL	
16	LP	01	291	BV		
17	RB	01	312.7	BV		
20	RI	02	331.3	BV		
22	RB	01	354.7	/TJ, /SS		
23	CB	11	354.7		T=8.8C, ACW=1.6M	
24	LP	00	363.5	SS/		
25	CB	01	371.5	/TJ, /LS		
26	CR	11	371.5		T=11.8C, ACW=.4M	
27	RI	00	389	WL		
29	CB	01	442.1	BV, SS/		
30	SR	02	442.1		H=.4M, HP	
35	CB	00	505.4	DJ	4-.45M POCKETS	
37	RB	00	556.4	/SS	EOS, T=8.8C	



Name: CLATSKANIE
 Date: 12/17/2003
 Scale: 1 inch equals 2000 feet

Location: 10 488895 E 5098879 N
 Caption: MILLER CREEK RESTORATION SITE - CLATSKANIE BASIN