

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

STREAM: Milton Creek (L-199)
BASIN: Lower Columbia River
SURVEY TYPE: Pre-Tx
DATE: July 2, 2003
SURVEY CREW: Trevor Diemer, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 88.7 km²
USGS MAPS: St. Helens
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Milton Creek habitat survey extended 508 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.3 (range: 1.5-10.0). Land use for the reach was city park and second growth (15-30 cm dbh) trees. The average unit gradient was 1.1 percent. Riffles (52%) and scour pools (29%) dominated stream habitat. Gravel (54%) and cobble (20%) dominated stream substrate. Wood volume was very low at 1.5 m³/100m.

COMMENTS:

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

REACH 1

T04N-R01W-S09SE

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	8.3	VWI Range:	1.5 - 10

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	508	4,979	0
Secondary	35	181	2

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	9.8	Width	14.6	26.9	31.8
Depth	0.42	Height	0.4	0.8	1.5
		W:D ratio	38.9	Entrenchment	1.9

Stream Flow Type:	MF	Water temp (C):	-
Avg. Unit Gradient:	1.1%	Habitat Units/100m:	4.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	GN	ST
Riparian Vegetation:	D30	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	9%	Reach avg: 77%
Undercut Banks:	2%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	9	1.8
Volume (m ³):	7	1.5
Key pieces (>=10m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

MILTON CREEK PRE-TX (L-199)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/2/03

REACH 1		T04N-R01W-S09SE					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	
DRY UNIT	1	18	8.0	0.01	144	0	5	5	80	10	0	0	
GLIDE	1	28	14.6	0.60	412	11	10	10	60	20	0	0	
POOL-DAMMED	1	19	13.2	1.10	252	0	10	10	60	10	0	10	
POOL-LATERAL SCOUR	6	188	8.2	0.82	1,516	23	8	8	52	22	5	6	
PUDDLED UNIT	1	17	2.2	0.20	37	0	10	15	15	5	0	55	
RIFFLE	13	264	10.5	0.26	2,701	104	4	7	55	19	8	7	
STEP/COBBLE	1	6	10.4	0.15	61	0	0	0	60	40	0	0	
STEP/STRUCTURE	1	3	10.7	0.10	36	13	5	5	40	30	20	0	
Total:	25	543	9.8	0.42	5,160	151	Avg	5	7	54	20	6	8

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		35
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	1	19	13.2	1.10	252	4.89%	0	0.0	
Scour Pools	6	188	8.2	0.82	1,516	29.38%	23	1.5	
Glides	1	28	14.6	0.60	412	7.98%	11	2.7	
Riffles	13	264	10.5	0.26	2,701	52.36%	104	3.8	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	9	10.6	0.13	98	1.89%	13	13.3	
Dry	2	35	5.1	0.11	181	3.50%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	7	12.9
Pools >=1m deep:	2	3.7
Complex pools (LWD pieces>=3):	0	0.0
Pool frequency (channel widths/pool):	5.3	
Residual pool depth (avg):	0.72	

STREAM SUMMARY

MILTON CREEK PRE-TX (L-199)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Large Boulders (#>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
25	543	9.8	0.42	5,160	5	7	54	20	6	8	151

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	252	4.89%
Scour Pools	1,516	29.38%
Glides	412	7.98%
Riffles	2,701	52.36%
Rapids	0	0.00%
Cascades	0	0.00%
Step/Falls	98	1.89%
Dry	181	3.50%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	610
Total conifers/1000 ft	20
Total conifers >20" dbh/1000 ft	20
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	0.0	0.7	0.0	1.3	0.0	1.3	0.0	3.3
15-30cm	0.0	1.0	0.0	2.3	0.0	2.3	0.0	5.7
30-50cm	0.0	0.7	0.0	0.0	0.0	0.3	0.0	1.0
50-90cm	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	2.3	0.0	3.7	0.0	4.0	0.1	3.3

Canopy closure and ground cover

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	61	61	66
Shrub cover	40	36	32
Grass/forb cover	58	63	67

Predominant landform in each zone

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	0	0	0
High terrace	50	83	100
Low terrace	50	17	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 (%)	0	0	0

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	610
Total conifers/1000 ft	20
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	0

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	3.3
15-30cm	0.0	5.7
30-50cm	0.0	1.0
50-90cm	0.3	0.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

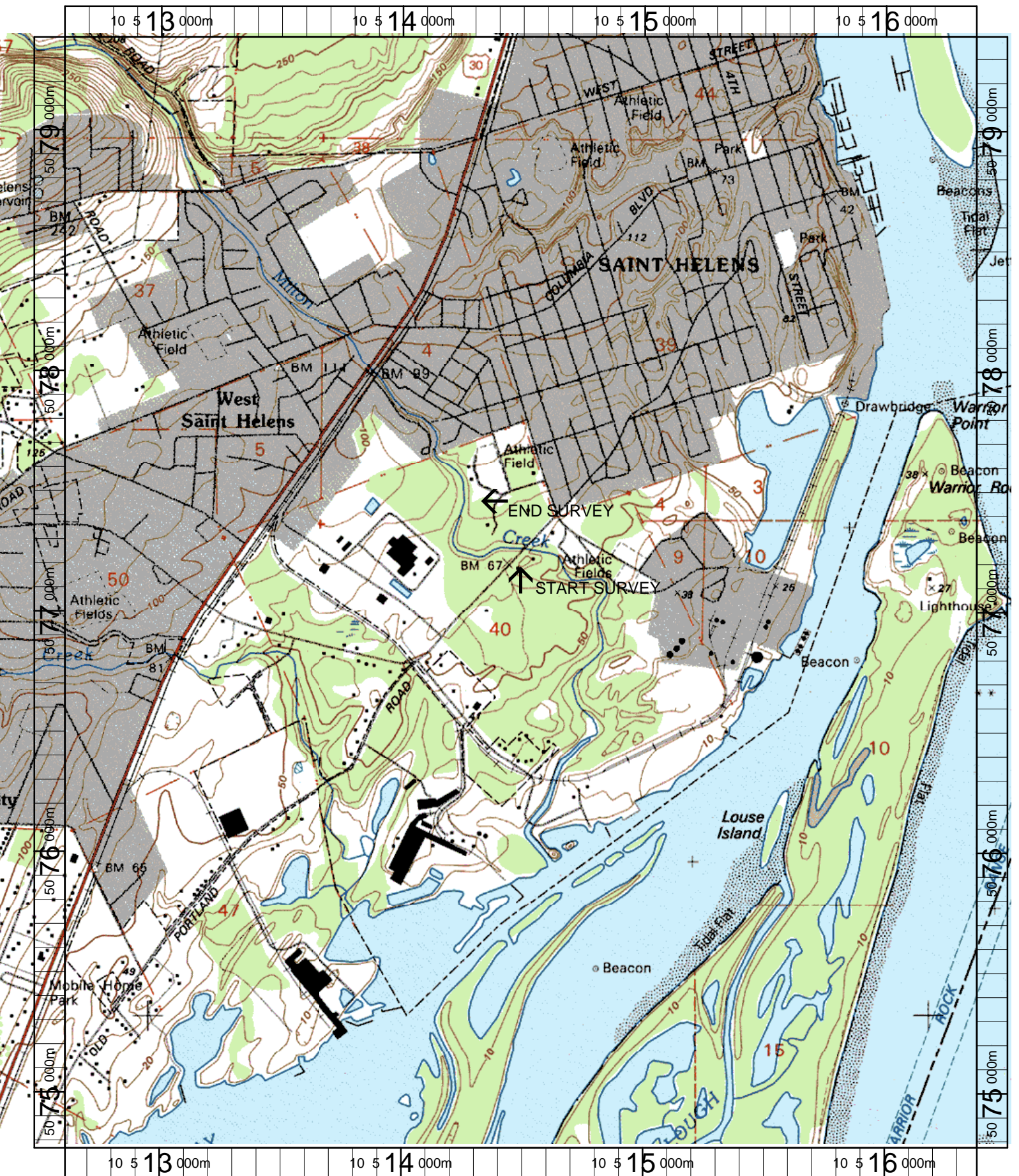
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
5	LF	2	HT	0	75	25	70	Conifer							NO TREES
								Hardwood							
5	LF	3	HT	0	85	40	60	Conifer							
								Hardwood		3					
5	RT	1	LT	0	40	0	95	Conifer							MOWED PARK
								Hardwood	1		1				
5	RT	2	HT	0	40	0	100	Conifer							
								Hardwood		3					
5	RT	3	HT	0	45	0	100	Conifer							
								Hardwood		1					
5	LF	1	HT	0	70	30	70	Conifer							
								Hardwood			1	1			
12	LF	2	HT	0	70	60	40	Conifer							
								Hardwood	2	1					
12	RT	3	HT	0	0	0	100	Conifer							
								Hardwood							
12	RT	2	LT	0	0	0	100	Conifer							
								Hardwood							
12	LF	3	HT	0	85	20	70	Conifer							
								Hardwood	1						
12	LF	1	HT	0	50	70	30	Conifer					1		
								Hardwood	1	1					
12	RT	1	LT	0	30	0	90	Conifer							NO TREES -- PARK TO BK OF STRM
								Hardwood							
20	RT	3	HT	0	90	60	40	Conifer							
								Hardwood	2	1	1				
20	LF	1	HT	2	85	70	30	Conifer							
								Hardwood							
20	LF	2	HT	0	90	60	40	Conifer							
								Hardwood	1						
20	LF	3	HT	0	90	70	30	Conifer							
								Hardwood	1	2					
20	RT	1	LT	0	90	70	30	Conifer							
								Hardwood			1				
20	RT	2	HT	0	90	70	30	Conifer							
								Hardwood	1	3					

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 7-L SITE ID: 199 MILTON CREEK PRE-TX (L-199)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	29.2	BC; CS/	10T 0514468 5077247 N19	OLD PORTLAND RD
2	SC	00	35.1	/CS	H=.20M	
3	LP	00	71.4	BV		DEN IN BANK
4	LP	00	102.8			HARDPAN CLAY BDRK
5	RI	00	128.6	RIP. T.	10T 051435 5077286 (N19	
8	SS	00	160.7			CHILDREN'S ROCK DAM
12	LP	00	276.5		10T 0514239 5077258 (N1	RIP. T.
14	PD	02	301.8			HARDPAN CLAY BEDROCK
15	DU	02	301.8	BV		
16	LP	00	330.1	WL		
20	RI	00	413.1			RIP.T.
21	GL	00	441.3		10T 0514221 5077359 (N1	
22	RI	00	466.3	WL		
25	RI	00	508.1		10T 0514246 5077453 (N1	END SURVEY



Name: ST HELENS
 Date: 6/11/2003
 Scale: 1 inch equals 1666 feet

Location: 10 514487 E 5077084 N
 Caption: MILTON CREEK RESTORATION SITE - LOWER COLUMBIA BASIN