

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

STREAM: Esmond Creek Middle (MC138)
BASIN: Siuslaw River
SURVEY TYPE: Pre-Tx
DATE: March 5, 2002
SURVEY CREW: Trevan Cornwell, Paul Jacobsen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 44.9 km²
USGS MAPS: Roam Nose Mtn.
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Esmond Creek habitat survey extended 533 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 10.0. Land uses for the reach were second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (36%) and riffles (30%) dominated stream habitat. Bedrock (45%) and gravel (24%) dominated stream substrate. Wood volume was low at 6.9 m³/100m.

COMMENTS:

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

REACH

T19S-R8W-S28NW

REACH

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	10.0	VWI Range:	10 - 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	533	4,179	0
Secondary	58	196	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.8	Width: 11.1	17.5 (10.2 - 27.3)	20.1 (11.3 - 31)
Depth: 0.38	Height: 0.7	1.4 (1 - 1.6)	1.8 (1.5 - 2)

W:D ratio: 16.8

Entrenchment (ACW:FPW ratio): 1.5

Stream Flow Type: MF

Habitat Units/100m (total channel length): 3.7

Average Unit Gradient: 0.9%

Habitat Units/100m (primary channel length): 4.1

Water temperature (°C): -

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 primary channel</u>
All pieces (>=3m x 0.15m):	35	6.6
Volume (m ³):	37	6.9
Key pieces (>=12m x 0.60m):	1	0.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

ESMOND CR (MID) PRE-TX (MC138)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

3/5/2001

REACH	T19S-R8W-S28NW							REACH				
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	7	6.0	0.05	42	0	0	0	5	5	0	90
GLIDE	2	104	8.2	0.25	849	0	5	15	18	8	0	55
POOL-ISOLATED	1	4	1.4	0.20	6	0	20	80	0	0	0	0
POOL-LATERAL SCOUR	6	207	7.3	0.84	1,564	0	5	22	27	6	1	38
PUDDLED UNIT	1	18	3.1	0.20	56	0	10	80	10	0	0	0
RAPID/BEDROCK	2	57	7.5	0.23	407	0	0	5	2	0	2	90
RAPID/BOULDERS	1	8	4.2	0.20	34	0	10	30	20	10	10	20
RIFFLE	5	173	7.6	0.24	1,318	0	1	7	31	5	3	53
STEP/BEDROCK	1	1	10.6	0.15	13	0	0	0	0	0	0	100
STEP/COBBLE	2	13	5.8	0.20	87	0	5	23	65	8	0	0
Total:	22	591	6.8	0.38	4,376	0	Avg: 4	20	24	5	2	45

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	4	1.4	0.20	6	0.13%	0	0.0
Scour Pools	6	207	7.3	0.84	1,564	35.74%	0	0.0
Glides	2	104	8.2	0.25	849	19.40%	0	0.0
Riffles	5	173	7.6	0.24	1,318	30.12%	0	0.0
Rapids	3	65	6.4	0.22	441	10.08%	0	0.0
Cascades	1	7	6.0	0.05	42	0.96%	0	0.0
Step/Falls	3	14	7.4	0.18	100	2.29%	0	0.0
Dry	1	18	3.1	0.20	56	1.28%	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:	7	11.8	13.1
Pools >=1m deep:	1	1.7	1.9
Complex pools (LWD pieces>=3):	1	1.7	1.9
Pool frequency (channel widths/pool):	7.6		
Residual pool depth (avg):	0.57		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **138** **ESMOND CR (MID) PRE-TX (MC138)**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	01	24.1	TJ/	START AT SMALL TJ
2	CR	11	24.1		TRIB
5	SR	01	95.3		H = 1.0
8	RB	02	159	DJ	
12	PD	02	197.3		COUPLE OF POOLS WITH EGG SACS
20	RI	00	429.2	/SS	
21	GL	00	481.2		OLD LOGS FROM BRIDGE - GONE
22	RI	00	532.9		ROAD ON LEFT