

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

STREAM: Esmond Creek Upper (MC139)
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: Clay Creek
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Esmond Creek habitat survey extended 506 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.4 (range: 4.0 – 7.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.7 percent. Scour pools (58%) and riffles (38%) dominated stream habitat. Gravel (51%) and cobble (24%) dominated stream substrate. Wood volume was low at 4.8 m³/100m.

COMMENTS:

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

REACH

T19S-R8W-S26SW

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	5.4	VWI Range:	4 - 7

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	506	2,746	0
Secondary	17	29	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 5.1	Width: 7.5	9.5 (6.6 - 12.5)	11.5 (8.2 - 17.5)
Depth: 0.47	Height: 0.6	1.1 (1 - 1.2)	1.5 (1.1 - 2)

W:D ratio: 13.4

Entrenchment (ACW:FPW ratio): 1.3

Stream Flow Type: MF

Habitat Units/100m (total channel length): 5.5

Average Unit Gradient: 0.7%

Habitat Units/100m (primary channel length): 5.7

Water temperature (°C): -

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
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):	79	15.6
Volume (m ³):	65	12.9
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

ESMOND CR (UPP) PRE-TX (MC139)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

3/5/2001

REACH		T19S-R8W-S26SW					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	
POOL-BACKWATER	2	17	1.8	0.40	29	0	5	25	60	5	5	0	
POOL-LATERAL SCOUR	15	274	5.8	0.72	1,619	0	5	20	48	18	3	6	
RAPID/BOULDERS	1	15	3.4	0.15	50	0	0	5	65	30	0	0	
RIFFLE	9	192	5.1	0.18	976	0	0	10	52	34	4	0	
RIFFLE W/ POCKETS	1	17	4.0	0.20	68	0	0	10	60	30	0	0	
STEP/COBBLE	1	8	4.3	0.10	32	0	0	5	55	40	0	0	
Total:	29	523	5.1	0.47	2,775	0	Avg: 3	16	51	24	3	3	

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	17	1.8	0.40	29	1.06%	0	0.0	
Scour Pools	15	274	5.8	0.72	1,619	58.34%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	10	209	5.0	0.19	1,044	37.63%	0	0.0	
Rapids	1	15	3.4	0.15	50	1.81%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	1	8	4.3	0.10	32	1.16%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	17	32.5	33.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	9	17.2	17.8
Pool frequency (channel widths/pool):	4.1		
Residual pool depth (avg):	0.56		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **139** **ESMOND CR (UPP) PRE-TX (MC139)**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	23.2	SS/	
13	BW	10	218.3		ROAD FAILURE/
15	LP	00	254.6	DJ	
18	RI	00	331		WINTER WREN
20	LP	00	365.1		SEVERAL FISH CARCASSES
26	RI	00	451.6		SMALL, DRY /TJ
27	LP	00	470.3		OLD ROAD XING - BRIDGE GONE