

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

STREAM: Esmond Creek Lower (MC-137)
BASIN: Siuslaw River
SURVEY TYPE: Post-Tx
DATE: February 10, 2003
SURVEY CREW: Jeremy Romer, Michael Scheu
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 44.9 km²
USGS MAPS: Roman Nose Mtn.
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Esmond Creek habitat survey extended 515 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 9.1 (range: 7.0-11.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.6 percent. Scour pools (87%) dominated stream habitat. Bedrock (43%) and gravel (38%) dominated stream substrate. Wood volume was moderate at 15.6 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length. Four habitat structures were noted during the survey.

REACH

T19S-R8W-S16NE

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	510	4,670	0
Secondary	46	177	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 7.8	Width: 12.9	15.4 (13.9 - 16.3)	19.1 (17 - 22)
Depth: 0.59	Height: 0.8	1.6 (1.2 - 1.8)	2.6 (2 - 3)

W:D ratio: 16.7

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: MF

Habitat Units/100m (total channel length): 3.6

Average Unit Gradient: 0.5%

Habitat Units/100m (primary channel length): 3.9

Water temperature (°C): -

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D30	C50

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):	29	5.7
Volume (m ³):	57	11.2
Key pieces (>=12m x 0.60m):	4	0.8

OREGON DEPARTMENT OF FISH AND WILDLIFE

ESMOND CR (LOW) PRE-TX (MC137)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

3/5/2001

REACH		T19S-R8W-S16NE					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
GLIDE	2	51	7.9	0.25	448	0	0	7	24	8	8	53
POOL-BACKWATER	2	23	2.7	0.50	71	0	3	8	65	15	0	10
POOL-LATERAL SCOUR	9	342	9.2	0.98	3,259	0	4	10	30	16	3	37
RAPID/BOULDERS	2	27	7.3	0.23	232	0	0	10	38	40	13	0
RIFFLE	3	99	6.8	0.22	715	0	0	8	20	23	0	48
STEP/COBBLE	2	15	8.7	0.13	121	0	0	10	60	25	5	0
Total:	20	556	7.8	0.59	4,846	0	Avg: 2	9	35	20	4	30

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	23	2.7	0.50	71	1.47%	0	0.0	
Scour Pools	9	342	9.2	0.98	3,259	67.25%	0	0.0	
Glides	2	51	7.9	0.25	448	9.24%	0	0.0	
Riffles	3	99	6.8	0.22	715	14.76%	0	0.0	
Rapids	2	27	7.3	0.23	232	4.79%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	15	8.7	0.13	121	2.49%	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:	11	19.8	21.6
Pools >=1m deep:	5	9.0	9.8
Complex pools (LWD pieces>=3):	2	3.6	3.9
Pool frequency (channel widths/pool):	3.9		
Residual pool depth (avg):	0.72		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **137** **ESMOND CR (LOW) PRE-TX (MC137)**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	49	BC	SALMONID FRY
5	RI	00	129.2	/SS	
8	LP	01	213.6	/TJ	LEOPOLD CR?
9	RB	11	213.6		RIGHT TRIB
10	GL	11	213.6		RIGHT TRIB
19	RI	00	462.8	SS/	
20	LP	00	509.9	SS/	END AT BEDROCK SS/