

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, 2004
SURVEY CREW: Jim Andrews, April Waters
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 523 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 19.4 (range: 17.0-20.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.7 percent. Scour pools (48%) and riffles (44%) dominated stream habitat. Bedrock (50%) and gravel (35%) dominated stream substrate. Wood volume was low at 12.1 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

REACH 1 T19S-R08W-S18NE 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	19.4	VWI Range:	17 - 20

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	523	4,972	0
Secondary	16	88	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 9.0	Width: 13.4	15.3 (14 - 17.8)	19.3 (15.2 - 27)
Depth: 0.71	Height: 0.8	1.5 (1.4 - 1.7)	2.1 (1.5 - 3.3)

W:D ratio: 17.8 Entrenchment (ACW:FPW ratio): 1.1
Stream Flow Type: MF Water temp (°C): 6.5 - 6.5
Avg. Unit Gradient: 0.7% Habitat Units/100m: 3.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	M30	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):	57	10.9
Volume (m ³):	63	12.1
Key pieces (>=10m x 0.60m):	2	0.4

OREGON DEPARTMENT OF FISH AND WILDLIFE ESOMD CREEK LOWER POST-TX (MC-137)

HABITAT INVENTORY

Report Date: 6/16/2004

Survey Date:

2/10/2004

REACH 1

T19S-R08W-S18NE

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	5	0.7	0.10	4	0	0	0	10	0	0	90
POOL-LATERAL SCOUR	6	241	9.9	1.27	2,436	0	0	3	23	2	4	67
RAPID/BOULDERS	1	11	8.0	0.40	85	0	0	5	30	5	30	30
RIFFLE	10	255	8.9	0.53	2,211	0	0	4	37	7	4	49
STEP/COBBLE	2	26	12.0	0.38	324	0	0	5	78	18	0	0
Total:	20	538	9.0	0.71	5,060	0	Avg: 0	4	35	6	5	50

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	0	0			0	0.00%	0	0.0
Scour Pools	6	241	9.9	1.27	2,436	48.15%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	10	255	8.9	0.53	2,211	43.70%	0	0.0
Rapids	1	11	8.0	0.40	85	1.68%	0	0.0
Cascades	1	5	0.7	0.10	4	0.07%	0	0.0
Step/Falls	2	26	12.0	0.38	324	6.40%	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>	<u># / Km</u>	
All Pools:	6	11.1	16
Pools >=1m deep:	6	11.1	
Complex pools (LWD pieces>=3):	2	3.7	
Pool frequency (channel widths/pool):	6.7		
Residual pool depth (avg):	0.86		

STREAM SUMMARY

ESMOND CREEK LOWER POST-TX (MC-137)

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	
20	538	9.0	0.71	5,060	0	4	35	6	5	50	

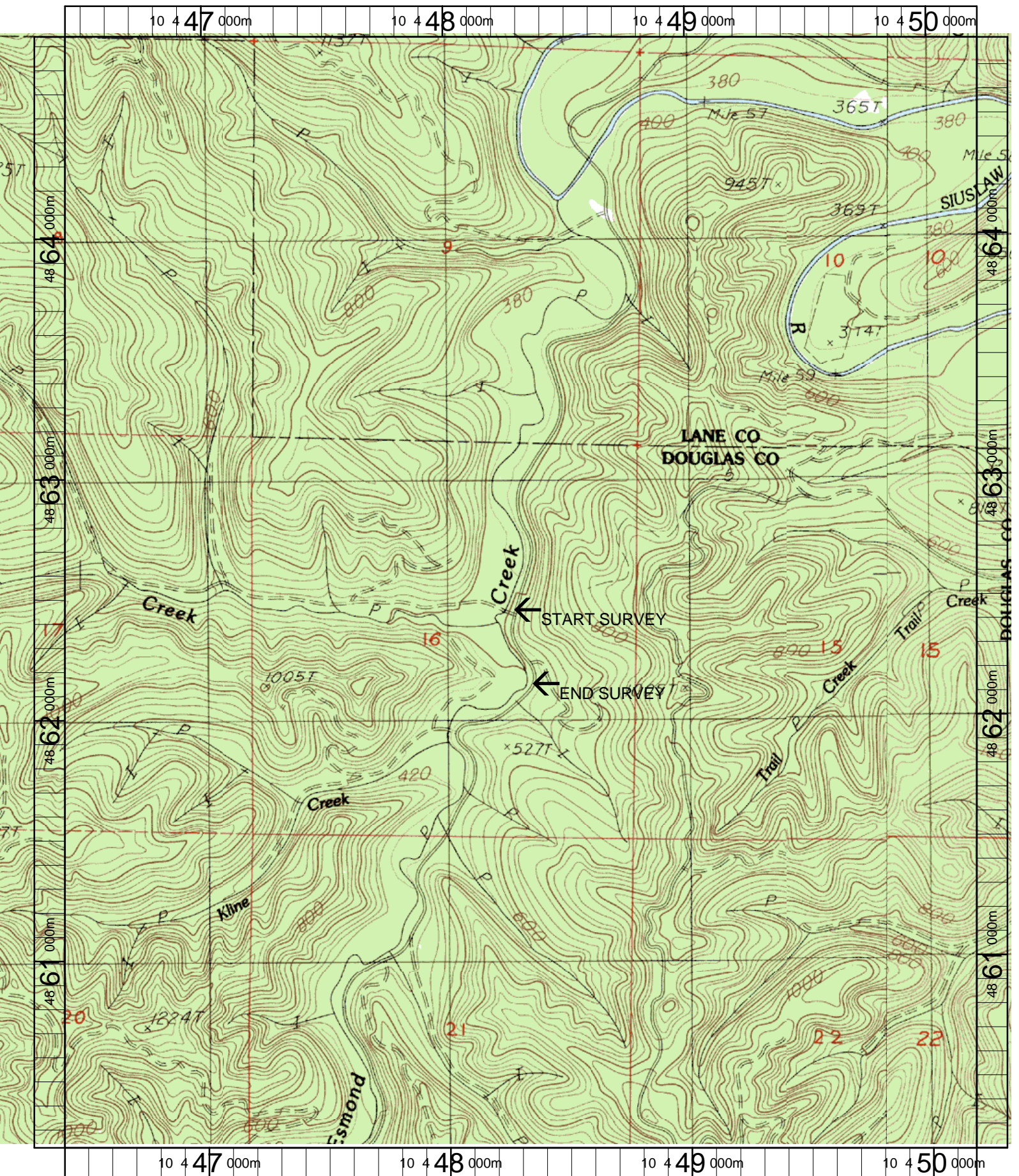
Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	2,436	48.15%
Glides	0	0.00%
Riffles	2,211	43.70%
Rapids	85	1.68%
Cascades	4	0.07%
Step/Falls	324	6.40%
Dry	0	0.00%
Culverts	0	0.00%

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **137** **ESMOND CREEK LOWER POST-TX (**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	LP	00	44.3	BV,HS	BLDRS	
3	LP	00	103.3	BV,/SS		
4	RI	00	117.7	BV,/SS		
5	LP	00	156.7	HS	1 LOG	
7	RI	01	189.7	/TJ	TJ W/40% FLOW	
8	RB	11	189.7		T=6.5C, LEOPOLD CR, AC	
10	RI	00	248.5	HS,DJ	LOGS	
11	LP	00	282	HS	LOGS	
12	RI	00	307	SS/	SG=4M	
16	LP	00	421.2		SG=4M	
17	RI	00	444.8		SG=4M	
18	RI	00	475.5	SS/		
19	LP	01	522.6	SS/,TJ/		
20	CR	11	522.6		EOS, T=6.5C	



Name: ROMAN NOSE MT
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 448303 E 4862522 N
 Caption: ESMOND CREEK (LOWER) RESTORATION SITE -
 SIUSLAW BASIN