

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: July 16, 2003
SURVEY CREW: Alex Higgins, Jeremiah Bernier
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 552 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.9 (range: 3.0-15.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.4 percent. Scour pools (59%) and glides (26%) dominated stream habitat. Bedrock (38), gravel (29%) and cobble (28%) dominated stream substrate. Wood volume was low at 9.4 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.

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

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/16/03

REACH 1		T19S-R08W-S16NE					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
GLIDE	4	117	7.8	0.19	998	35	0	4	24	4	5	64
POOL-LATERAL SCOUR	9	300	7.2	0.82	2,168	24	0	2	42	25	3	28
POOL-STRAIGHT SCOUR	1	11	6.6	0.70	74	15	0	5	0	0	15	80
RIFFLE	5	112	4.7	0.13	500	6	0	0	20	53	2	25
RIFFLE W/ POCKETS	1	8	3.9	0.20	29	3	0	0	10	55	15	20
STEP/BEDROCK	1	6	1.6	0.08	10	0	0	0	0	0	0	100
STEP/COBBLE	1	6	3.8	0.05	22	1	0	0	50	50	0	0
Total:	22	559	6.1	0.45	3,800	84	Avg 0	2	29	28	4	38

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		8
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	0	0			0	0.00%	0	0.0	
Scour Pools	10	311	7.1	0.81	2,242	58.99%	39	1.7	
Glides	4	117	7.8	0.19	998	26.26%	35	3.5	
Riffles	6	119	4.6	0.14	529	13.92%	9	1.7	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	12	2.7	0.07	32	0.84%	1	3.1	
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:	10	17.9
Pools >=1m deep:	1	1.8
Complex pools (LWD pieces>=3):	1	1.8
Pool frequency (channel widths/pool):	4.0	
Residual pool depth (avg):	0.66	

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	
22	559	6.1	0.45	3,800	0	2	29	28	4	38	84

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	2,242	58.99%
Glides	998	26.26%
Riffles	529	13.92%
Rapids	0	0.00%
Cascades	0	0.00%
Step/Falls	32	0.84%
Dry	0	0.00%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	386
Total conifers/1000 ft	772
Total conifers >20" dbh/1000 ft	163
Total conifers >35" dbh/1000 ft	122

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	0.3	1.0	4.0	2.0	3.0	1.3	7.3	4.3
15-30cm	0.7	0.7	0.0	1.0	1.3	0.0	2.0	1.7
30-50cm	0.3	0.3	0.0	0.0	0.3	0.0	0.7	0.3
50-90cm	0.3	0.0	0.3	0.0	0.0	0.0	0.7	0.0
>90cm	0.7	0.0	0.7	0.0	0.7	0.0	2.0	0.0
Total/100m2	2.3	2.0	5.0	3.0	5.3	1.3	4.2	2.1

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	58	50	43
Shrub cover	44	22	14
Grass/forb cover	39	40	28

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	33	33	33
High terrace	33	67	50
Low terrace	33	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	17
Riprap	0	0	0
Surface slope (%)	4	2	2

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

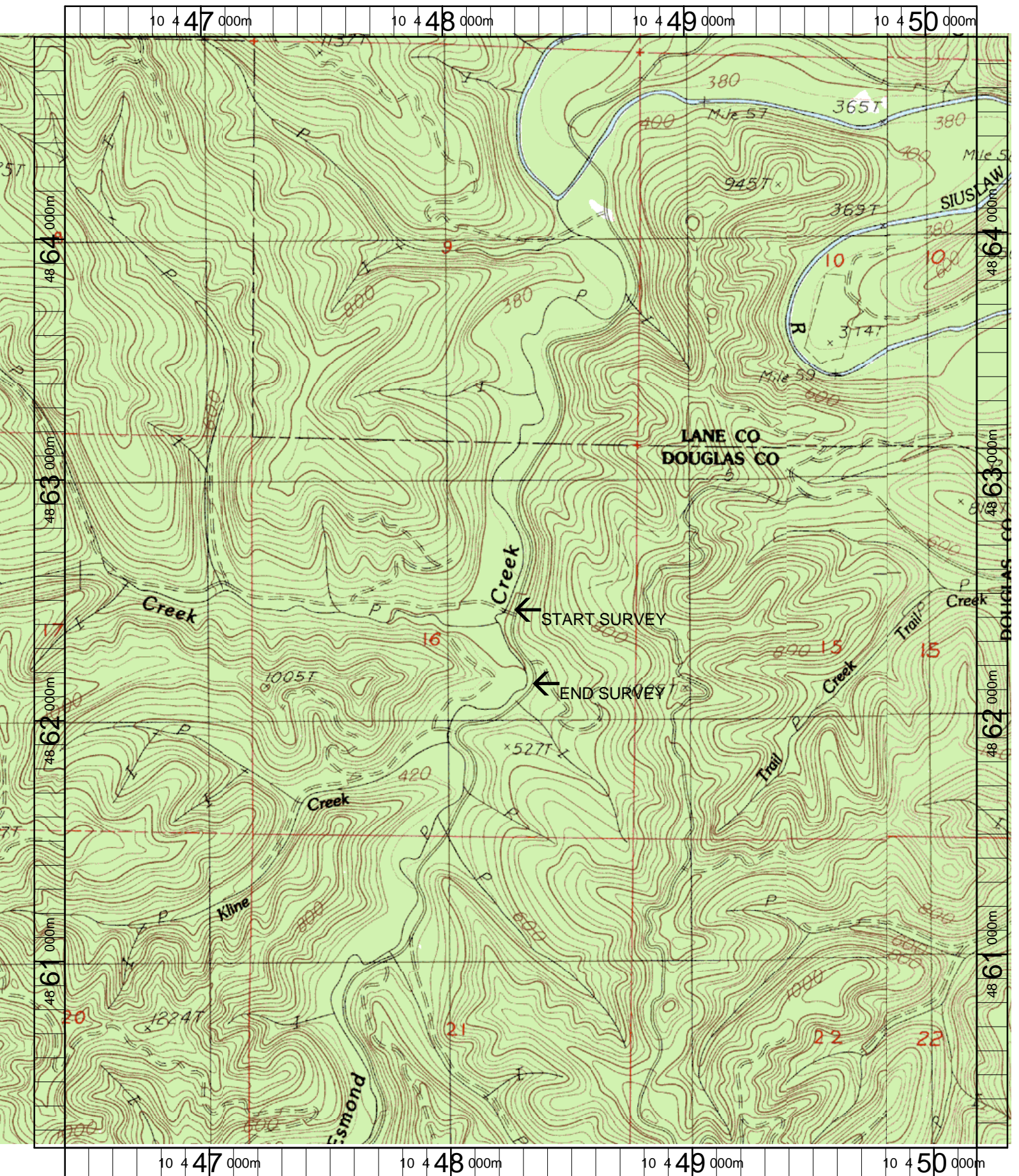
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
7	RT	1	HS	8	60	30	60	Conifer				1		
								Hardwood						
7	LF	1	LT	10	60	30	50	Conifer						
								Hardwood						
7	LF	3	HT	0	80	10	60	Conifer						1
								Hardwood						
7	RT	2	HS	5	75	0	40	Conifer	3					1
								Hardwood	1	3				
7	RT	3	HS	5	80	0	40	Conifer		2	1			
								Hardwood						
7	LF	2	HT	0	80	20	60	Conifer						1
								Hardwood	2					
12	RT	2	HT	0	5	50	10	Conifer	4					PLANTATION
								Hardwood						
12	LF	1	HS	7	55	30	30	Conifer	1	1	1			
								Hardwood	1	1				
12	LF	2	HS	5	60	15	30	Conifer				1		
								Hardwood						
12	LF	3	HS	5	90	5	20	Conifer		1				1
								Hardwood	3					
12	RT	1	HT	0	40	70	30	Conifer						1
								Hardwood						
12	RT	3	HT	0	0	50	0	Conifer	6					PLANTATION
								Hardwood	1					
17	LF	1	LT	0	80	85	5	Conifer						
								Hardwood	2		1			
17	RT	1	HT	0	50	20	60	Conifer		1				1
								Hardwood		1				
17	LF	2	HT	0	80	40	40	Conifer	2					
								Hardwood	3					
17	LF	3	RB	0	10	10	5	Conifer						
								Hardwood						
17	RT	3	HT	0	0	10	40	Conifer	3	1				
								Hardwood						
17	RT	2	HT	0	0	5	60	Conifer	3					
								Hardwood						

Comment Summary

Oregon Plan Monitoring Sites 2003

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	SP	00	11.2	CS/CS	/CS/ START UNDER BRI	BRIDGE BLM 16
2	GL	00	38.2	HS	HS (BOULDERS)	BOULDERS
7	LP	00	180.6	/LA	HS RIP 1	RIP 1
9	GL	01	253.4	/TJ; HS	/TJ LEOPOLD CR. HS	LEOPOLD CREEK; LOGS
10	RP	11	253.4		T=14.5 ACW=8.4	
12	RI	00	294.5		START OF /YT	RIP 2
13	LP	00	318.2	DJ	DJ HS	
15	LP	00	355.7		CS/	
16	LP	00	380.3		CS/	
17	RI	00	418.6			RIP 3
18	LP	00	450.5			ESTIMATED DEPTH
22	LP	00	551.8	SS/	SS/ END	END SURVEY



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