

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

STREAM: Little Lobster Creek (MC-43)
BASIN: Alsea River
SURVEY TYPE: Post-Tx
DATE: February 21, 2006
SURVEY CREW: Paul Jacobsen, Brian Bangs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 20.4 km³
USGS MAPS: Digger Mountain
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Little Lobster Creek habitat survey extended 379 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 4.4 (range: 2.3-6.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (65%) and riffles (24%) dominated stream habitat. Gravel (35%) and sand (29%) dominated stream substrate. Wood volume was high at 37.5 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.

Stream Little Lobster Creek (MC-43)

Basin Alsea River

Treatment Large Wood

	ODFW Benchmark		Pre 3/5/99	Post 1/31/00	Post 2/21/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	33.7	33.7	66.2		
Number of Pools			8	12	11		
Deep Pools/km (>1.0 m)			10.7	10	2.5		
% Off-Channel			15.3	4.3	1.7		
LWD – Pieces/100m	>20	<10	13.3	18.0	21.4		
LWD – Volume/100m	>30	<20	29.1	81.2	37.5		
LWD – Key Pieces/100m	>3	<1	2.7	4.2	1.6		
Large Wood Jams/km			7.4	15.9	18.5		
% Riffle Fines	<10	>20	38	9	27		
% Riffle Gravel	>35	<15	42	48	46		
% Bedrock			0	14	13		

Bold is noticeable change

Comments: Since the treatment was large wood assembled in complex jams, it is no surprise that there was an increase in those variables. What is important is that the large wood is being retained in the treated reach and is accumulating additional wood pieces and additional wood jams. The large decrease in large wood volume 2000 to 2006 suggests overstated wood volumes in the 2000 survey. Deep pools were substantially reduced, but the total number of pools and total pool area increased. No large change in substrate occurred.

REACH 1

T14S-R09W-S36NW

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.4	VWI Range:	2.3 - 6

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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 Channel	379	2,218	0
Secondary Channel	0	0	0
Off-Channel Units	24	39	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 3	<u>First Terrace</u> n = 3
Width: 5.3	Width: 12.0	29.5 (19.2 - 36.5)	33.7 (23 - 40)
Depth: 0.53	Height: 0.8	1.5 (1.4 - 1.7)	1.7 (1.6 - 1.9)

W:D ratio: 16.2
 Stream Flow Type: LF
 Average Unit Gradient: 0.9%
 Water temperature (°C): 5.5 - 5.5

Entrenchment (ACW:FPW ratio): 2.5
 Habitat Units/100m (total channel length): 5.7
 Habitat Units/100m (primary channel length): 6.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D30	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):	81	21.4
Volume (m ³):	142	37.5
Key pieces (>=12m x 0.60m):	6	1.6

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

2/21/2006

REACH 1		T14S-R09W-S36NW					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/BOULDERS	1	5	1.0	0.10	5	0	0	10	30	60	0	0
CULVERT CROSSING	1	11	0.7	0.10	8	0	0	0	40	40	20	0
POOL-BACKWATER	1	7	3.6	0.85	26	0	25	75	0	0	0	0
POOL-LATERAL SCOUR	10	225	6.6	0.84	1,468	0	4	38	23	8	8	20
RIFFLE	6	117	4.4	0.32	544	0	1	26	46	15	8	3
STEP/BEDROCK	1	11	6.0	0.30	66	0	1	1	10	5	10	74
STEP/COBBLE	3	27	6.0	0.20	140	0	0	13	70	15	2	0
Total:	23	403	5.3	0.53	2,257	0	Avg: 3	29	35	14	7	13

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	7	3.6	0.85	26	1.16%	0	0.0	
Scour Pools	10	225	6.6	0.84	1,468	65.02%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	6	117	4.4	0.32	544	24.10%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	1	5	1.0	0.10	5	0.23%	0	0.0	
Step/Falls	4	38	6.0	0.23	206	9.13%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	11	0.7	0.10	8	0.35%	0	0.0	

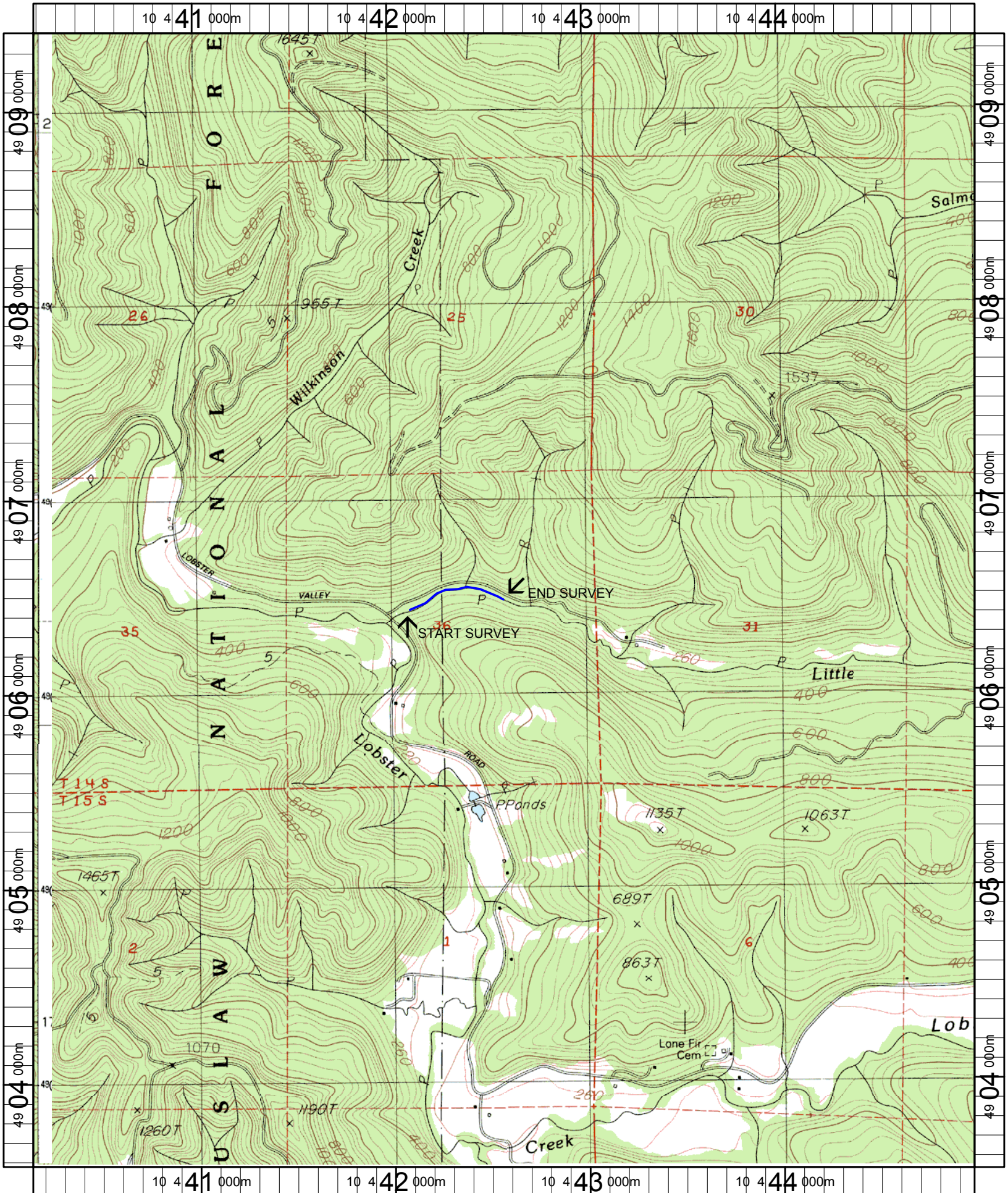
POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	11	27.3	29.0
Pools >=1m deep:	1	2.5	2.6
Complex pools (LWD pieces>=3):	9	22.3	23.7
Pool frequency (channel widths/pool):	3.1		
Residual pool depth (avg):	0.54		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **43** **LITTLE LOBSTER CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	27.9	HS,CE/,CS/	START SIGN ON RIGHT	
2	RI	00	42.9		TAG FOR REST SITE 1	
3	LP	00	66.4	/SS		
8	LP	00	129.3	HS		
10	LP	00	162.3	HS		
11	SC	00	166	HS		
12	LP	00	199.4	TJ/		
13	RI	01	225	BV		
14	CB	11	225		T = 7.5	
15	CC	11	225	CC		
16	LP	00	240.7	HS, DJ	SITE 3	
17	RI	00	266.8	HS		
19	LP	00	298	HS, DJ	SITE 4	
20	LP	00	320.7	HS	SALMON SKELETON	
22	LP	00	363.7	HS, BV		



Name: DIGGER MT
 Date: 1/23/2006
 Scale: 1 inch equals 2000 feet

Location: 10 442579 E 4906471 N
 Caption: LITTLE LOBSTER CREEK RESTORATION SITE - ALSEA BASIN