

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: August 4, 2006
SURVEY CREW: Lanoah Babcock, Sharon Tippery
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 20.4 km²
USGS MAPS: Digger Mountain
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Little Lobster Creek habitat survey extended 396 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 7.2 (range: 3.5-10.0). Land use for the reach was second growth (15-30 cm dbh) trees and rural residential. The average unit gradient was 0.8 percent. Scour pools (82%) dominated stream habitat. Sand (34%), gravel (29%) and cobble (25%) dominated stream substrate. Wood volume was moderate at 29.4 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.

Stream Little Lobster Creek (MC-43)

Basin Alsea River

Treatment Large Wood

	ODFW Benchmark		Pre 7/14/99	Post 7/10/00	Post 8/4/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	67.3	61.4	81.8		
Number of Pools			16	15	13		
Deep Pools/km (>1.0 m)			2.2	0.0	0.0		
% Off-Channel			1.0	4.9	1.1		
LWD – Pieces/100m	>20	<10	20.8	18.0	20.0		
LWD – Volume/100m	>30	<20	50.2	35.6	29.4		
LWD – Key Pieces/100m	>3	<1	2.6	2.0	0.8		
Large Wood Jams/km			21.6	15.2	15.2		
% Riffle Fines	<10	>20	13	22	18		
% Riffle Gravel	>35	<15	79	34	61		
% Bedrock			8	13	5		

Bold is noticeable change

Comments: Large wood appears to have been higher prior to treatment rather than after, but that is probably a result of crew error during the pre-treatment survey. Unfortunately, wood numbers appear to be decreasing since treatment, suggesting that large wood is leaving the reach without additional recruitment. Pool area has increased. Deep pools are lower, but that may be a symptom of stream flows rather than actual change. Substrate values remained relatively static over time.

REACH 1

T14S-R08W-S36NE

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	7.2	VWI Range:	3.5 - 10

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 Channel	396	2,604	0
Secondary Channel	0	0	0
Off-Channel Units	6	30	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 5.7	Width: 9.3	11.9 (10.8 - 13.2)	14.0 (13 - 15)
Depth: 0.32	Height: 0.4	0.7 (0.6 - 0.8)	1.1 (0.9 - 1.4)

W:D ratio: 26.4

Entrenchment (ACW:FPW ratio): 1.3

Stream Flow Type: LF

Habitat Units/100m (total channel length): 6.7

Average Unit Gradient: 0.8%

Habitat Units/100m (primary channel length): 6.8

Water temperature (°C): 15.0 - 15.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	RR
Riparian Vegetation:	D30	P

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 75%
Undercut Banks:	8%	Range: 58 - 83

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	79	20.0
Volume (m ³):	116	29.4
Key pieces (>=12m x 0.60m):	3	0.8

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

8/4/2006

REACH 1		T14S-R08W-S36NE					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
POOL-LATERAL SCOUR	13	306	7.0	0.55	2,155	41	3	62	17	9	5	6
RAPID/BOULDERS	1	6	5.0	0.02	30	0	0	0	20	80	0	0
RIFFLE	4	54	5.4	0.14	293	10	0	18	61	15	6	0
STEP/BEDROCK	1	6	5.3	0.10	32	7	0	5	5	10	20	60
STEP/COBBLE	8	30	4.0	0.11	125	10	0	4	36	53	8	0
Total:	27	402	5.7	0.32	2,634	68	Avg: 1	34	29	25	6	5

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	13	306	7.0	0.55	2,155	81.80%	41	1.9	
Glides	0	0			0	0.00%	0	0.0	
Riffles	4	54	5.4	0.14	293	11.11%	10	3.4	
Rapids	1	6	5.0	0.02	30	1.14%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	9	36	4.2	0.11	157	5.95%	17	10.8	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	<u>Total of all Channel Lengths # / Km</u>	<u>Primary Channel Length # / Km</u>
All Pools:	13	32.3	32.8
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	9	22.4	22.7
Pool frequency (channel widths/pool):	3.3		
Residual pool depth (avg):	0.44		

Survey Date 8/4/2006
Report Date: 3/5/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	671
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

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	0.0	0.7	0.0	0.0	0.0	0.0	0.0
15-30cm	0.0	1.0	0.0	1.7	0.0	1.0	0.0	3.7
30-50cm	0.0	3.3	1.0	2.0	0.7	0.7	1.7	6.0
50-90cm	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	5.3	1.0	4.0	0.7	1.7	0.6	3.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	Conifer (%)		Conifer (%)		Conifer (%)	
	Canopy closure	68	72	76		
Shrub cover	65	55	43			
Grass/forb cover	35	37	38			

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	Conifer (%)		Conifer (%)		Conifer (%)	
	Hillslope	17	33	33		
High terrace	33	17	33			
Low terrace	50	33	17			
Floodplain	0	0	0			
Wetland/meadow	0	0	0			
Stream channel	0	0	0			
Roadbed/Railroad	0	17	17			
Riprap	0	0	0			
Surface slope (%)	28	27	32			

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	671
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	0.7
15-30cm	0.0	3.7
30-50cm	1.7	6.0
50-90cm	0.0	0.7
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

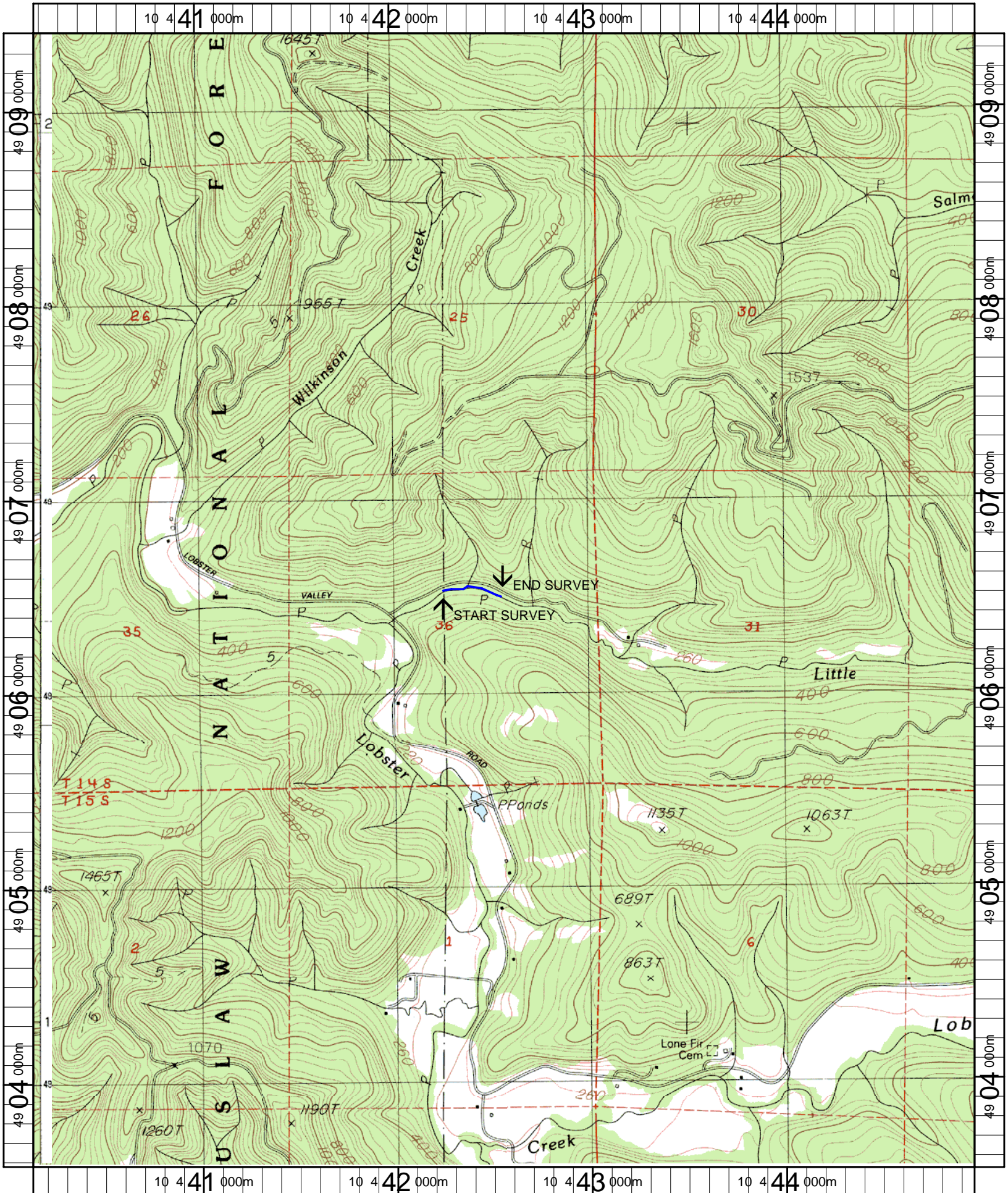
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
5	LF	3	RB	12	75	30	10	Conifer							
								Hardwood		2	1				
5	RT	3	HT	13	70	60	40	Conifer							
								Hardwood		1	1				
5	RT	2	HT	11	65	75	25	Conifer							
								Hardwood		2					
5	LF	1	LT	5	55	55	45	Conifer							NO GPS COVERAGE
								Hardwood			1				
5	LF	2	LT	6	65	75	25	Conifer							
								Hardwood		1	1				
5	RT	1	HT	35	60	80	20	Conifer							
								Hardwood	2	2					
11	RT	3	HS	70	80	45	55	Conifer							NO TREES
								Hardwood							
11	LF	1	HT	42	70	70	30	Conifer							POOR GPS COVERAGE
								Hardwood			5				
11	LF	2	RB	7	65	15	35	Conifer			3				50% GRAVEL
								Hardwood							
11	LF	3	HT	16	75	15	30	Conifer			2				TRANS
								Hardwood							
11	RT	1	LT	11	75	90	10	Conifer							NO TREES
								Hardwood							
11	RT	2	HS	57	75	30	70	Conifer							
								Hardwood			1	1			
21	LF	2	LT	12	75	90	10	Conifer							
								Hardwood		2	1				
21	LF	3	LT	10	70	90	10	Conifer							NO TREES
								Hardwood							
21	RT	1	HS	51	80	15	85	Conifer							
								Hardwood			1	1			
21	RT	2	HS	70	85	45	55	Conifer							
								Hardwood			3				
21	RT	3	HS	72	85	20	80	Conifer							NO TREES
								Hardwood							
21	LF	1	LT	21	70	80	20	Conifer							NO GPS COVERAGE
								Hardwood		1	3				

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **43** **LITTLE LOBSTER CREEK 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	23	CC/, WL	CC/, RIPRAP/, T=15C	CULVERT OUT OF WATER
2	RI	00	33	BV		
3	LP	00	77	HS, WL	HS	REST. SIGN /ALDER; COH
5	LP	00	108	BV	RIPARIAN #1	CRAWDAD
6	SR	00	114		PGS	BEE HIVES IN RIGHT BAN
7	LP	00	137.5	HS, BV	HS	COHO
11	LP	00	173.1	HS	HS	COHO
13	LP	00	211.6	WL		COHO
14	SC	01	214	TJ/	TJ	
15	RB	11	214	CC	T=12C, TRIB UNIT THEN CC	T=12.0C
16	LP	00	230.4			COHO, MUSSELS
18	LP	00	253.4	HS, BV	HS	HS SIGN 3, COHO, BEES
20	LP	00	287.4	BV		COHO
22	LP	00	309.4	HS, BV	HS	HS SIGN 4
24	LP	00	333.4	WL, HS	HS	MUSSELS, COHO
25	RI	00	355.4			WOOD DEBRIS LEFT BAN
26	LP	00	393.4	HS	HS	
27	SC	00	395.9		END SIGN ALDER/, BEES-CA	END SIGN ALDER LEFT



Name: DIGGER MT
 Date: 5/22/2006
 Scale: 1 inch equals 2000 feet

Location: 10 442568 E 4906471 N
 Caption: LITTLE LOBSTER CREEK RESTORATION SITE - ALSA BASIN