

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

STREAM: Long Prairie Creek Lower (MC-46)
BASIN: Siletz River
SURVEY TYPE: Post-Tx
DATE: February 27, 2006
SURVEY CREW: Paul Jacobsen, Brian Bangs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 13.4 km³
USGS MAPS: Eddyville
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Long Prairie Creek habitat survey extended 486 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.2 (range: 4.0-9.0). Land use for the reach was second growth (15-30 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 0.4 percent. Scour pools (84%) dominated stream habitat. Gravel (49%) and sand (32%) dominated stream substrate. Wood volume was moderate at 24.1 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.

Stream Long Prairie Creek Lower (MC-46)

Basin Siletz River

Treatment Large Wood

	ODFW Benchmark		Pre 1/26/00	Post 2/20/01	Post 2/27/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	79.7	86.4	91.6		
Number of Pools			15	17	16		
Deep Pools/km (>1.0 m)			26.5	19.3	10.8		
% Off-Channel			1.9	1.0	5.3		
LWD – Pieces/100m	>20	<10	7.8	9.9	16.0		
LWD – Volume/100m	>30	<20	14.8	17.9	24.1		
LWD – Key Pieces/100m	>3	<1	0.9	0.4	0.4		
Large Wood Jams/km			0	4.1	4.1		
% Riffle Fines	<10	>20	17	15	14		
% Riffle Gravel	>35	<15	78	45	65		
% Bedrock			4	2	2		

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 wood volume. Pool area increased while deep pools were reduced. Off-channel habitat appears to be increasing while substrate has remained stable.

REACH 1

T10S-R09W-S17NE

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	6.2	VWI Range:	4 - 9

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 Channel	486	2,475	0
Secondary Channel	28	70	0
Off-Channel Units	41	69	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.4	Width: 11.9	23.3 (15.5 - 39)	33.4 (17.1 - 48)
Depth: 0.65	Height: 0.8	1.6 (1.5 - 1.6)	1.8 (1.75 - 2)

W:D ratio: 15.1
 Stream Flow Type: LF
 Average Unit Gradient: 0.4%
 Water temperature (°C): 8.5 - 8.5

Entrenchment (ACW:FPW ratio): 2.0
 Habitat Units/100m (total channel length): 4.3
 Habitat Units/100m (primary channel length): 4.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	MT
Riparian Vegetation:	S	G

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):	78	16.0
Volume (m ³):	117	24.1
Key pieces (>=12m x 0.60m):	2	0.4

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

2/27/2006

REACH 1		T10S-R09W-S17NE					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	9	0.9	0.07	8	0	0	5	15	70	10	0
POOL-BACKWATER	1	10	2.2	0.65	21	0	20	80	0	0	0	0
POOL-BEAVER DAM	1	28	6.0	1.00	168	0	10	80	10	0	0	0
POOL-LATERAL SCOUR	14	440	5.1	0.88	2,205	0	6	33	54	4	2	2
RIFFLE	2	37	2.3	0.18	80	0	2	12	65	15	5	0
STEP/BEAVER DAM	1	0	4.7	0.05	2	0	10	50	30	0	0	10
STEP/COBBLE	4	31	4.1	0.29	130	0	3	16	60	16	0	5
Total:	24	555	4.4	0.65	2,614	0	Avg: 6	32	49	9	2	2

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	38	4.1	0.83	189	7.23%	0	0.0	
Scour Pools	14	440	5.1	0.88	2,205	84.35%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	2	37	2.3	0.18	80	3.06%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	1	9	0.9	0.07	8	0.31%	0	0.0	
Step/Falls	5	31	4.2	0.24	132	5.04%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

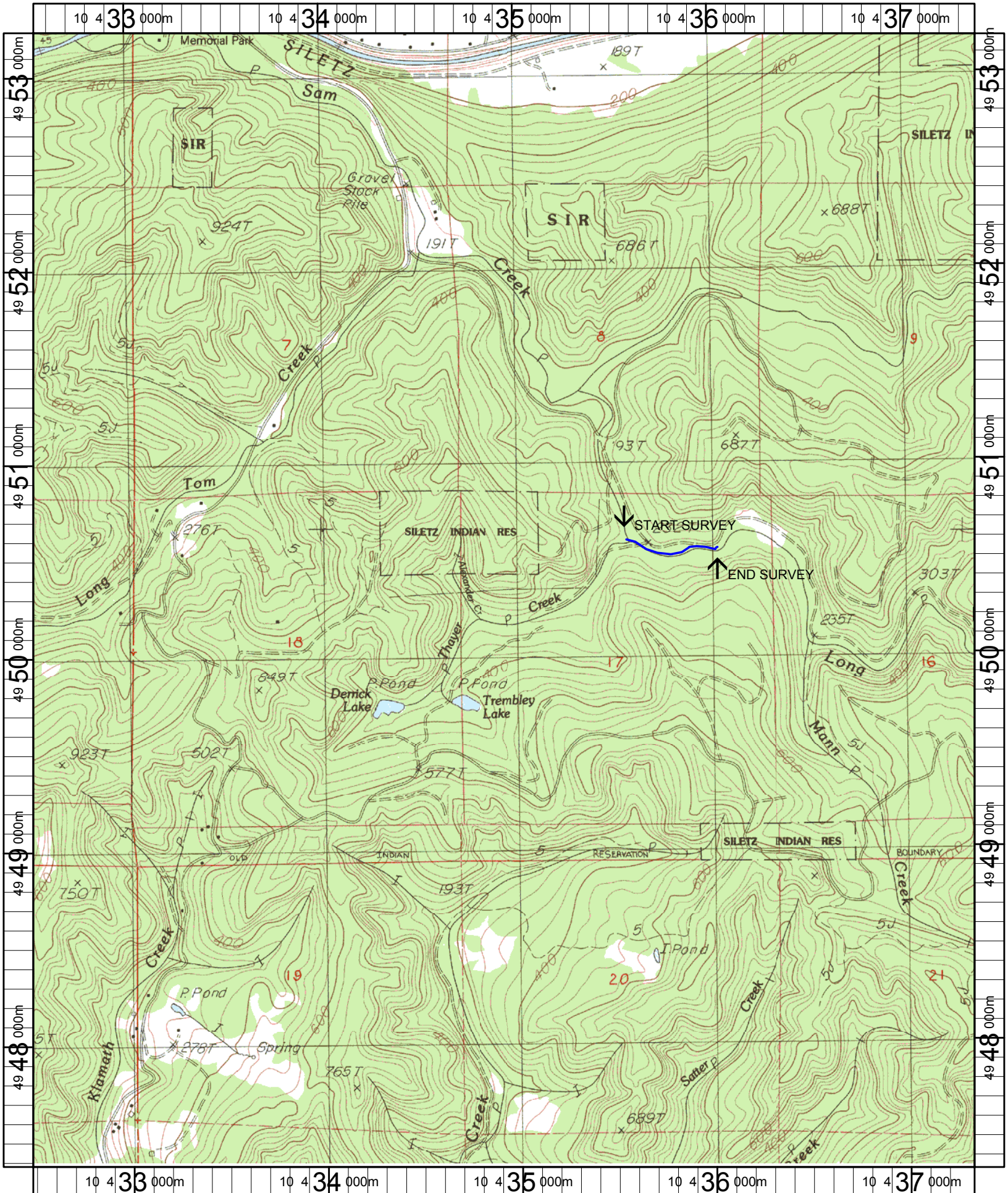
POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	16	28.8	32.9
Pools >=1m deep:	6	10.8	12.3
Complex pools (LWD pieces>=3):	8	14.4	16.5
Pool frequency (channel widths/pool):	2.9		
Residual pool depth (avg):	0.61		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **46** **LONG PRAIRIE CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	01	29.4	HS, /TJ,BV	FRY	
2	RI	11	29.4		THAYER CR, T = 8.5 AT 2PM	
3	LP	00	41.9	BV		
4	LP	00	65.9	HS		
7	BW	10	86.4		LOTS OF FISH	
8	LP	00	157.4	BV	FAILED BV DAM, OLD BV LODGE	
9	LP	00	175.4	BV		
12	SC	00	197.4	BV	FAILED BV DAM, BV DEN	
15	LP	01	255.1	/SS		
17	LP	01	287.9	BV, /TJ		
18	CB	11	287.9		T=9.0	
19	LP	00	297.6	HS		
20	LP	00	385.6	BV, HS	BLOWN BV DAM	
21	SC	00	394.6	HS		
23	SD	00	458	BD	H = 0.3, FRESH STICKS IN DAM	
24	BP	00	486	BV	BV SLIDE AND DEN	



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

Location: 10 434930 E 4950284 N
 Caption: LONG PRAIRIE CREEK LOWER #46 RESTORATION SITE -
 SILETZ BASIN