

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

STREAM: Long Tom Creek (MC-92)
BASIN: Siletz River
SURVEY TYPE: Post-Tx
DATE: February 23, 2006
SURVEY CREW: Charlie Stein, Brian Bangs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.3 km³
USGS MAPS: Eddyville
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Long Tom Creek habitat survey extended 505 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 4.9 (range: 3.5-7.0). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 0.5 percent. Scour pools (78%) dominated stream habitat. Sand (44%) and gravel (35%) dominated stream substrate. Wood volume was moderate at 28.6 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 Tom Creek (MC-92)
 Basin Siletz River
 Treatment Large Wood

	ODFW Benchmark		Pre 3/9/98	Post 2/1/99	Post 2/23/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	61.1	52.5	82.9		
Number of Pools			20	15	22		
Deep Pools/km (>1.0 m)			20.2	9.8	3.7		
% Off-Channel			2.4	6.9	2.1		
LWD – Pieces/100m	>20	<10	5.5	10.1	17.0		
LWD – Volume/100m	>30	<20	7.0	23.0	28.6		
LWD – Key Pieces/100m	>3	<1	0.4	1.7	2.2		
Large Wood Jams/km			0	9.4	7.9		
% Riffle Fines	<10	>20	30	64	36		
% Riffle Gravel	>35	<15	63	36	62		
% Bedrock			1	0	1		

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. Large wood pieces, volume and key pieces are all higher since treatment. Wood jams have decreased slightly since treatment. Pool area has increased, but the number of deep pools has decreased. Substrate remains basically stable.

REACH 1

T10S-R09W-S07NE

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	4.9	VWI Range:	3.5 - 7

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	505	2,451	0
Secondary Channel	0	0	0
Off-Channel Units	40	53	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 4.2	Width: 6.3	19.2 (15.1 - 24.2)	24.4 (20.2 - 28.2)
Depth: 0.50	Height: 0.6	1.2 (1.1 - 1.3)	1.4 (1.2 - 1.55)

W:D ratio: 10.3
 Stream Flow Type: MF
 Average Unit Gradient: 0.5%
 Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 3.1
 Habitat Units/100m (total channel length): 5.9
 Habitat Units/100m (primary channel length): 6.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
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):	86	17.0
Volume (m ³):	145	28.6
Key pieces (>=12m x 0.60m):	11	2.2

OREGON DEPT OF FISH AND WILDLIFE

LONG TOM CREEK POST-TX (2-MC, 92)

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

2/23/2006

REACH 1		T10S-R09W-S07NE					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	0.5	0.05	2	0	0	10	90	0	0	0
POOL-BACKWATER	2	9	2.5	0.60	21	0	50	50	0	0	0	0
POOL-BEAVER DAM	1	16	4.2	0.90	66	0	29	57	14	0	0	0
POOL-ISOLATED	2	17	1.2	0.26	23	0	90	10	0	0	0	0
POOL-LATERAL SCOUR	16	386	4.9	0.72	1,909	0	17	55	26	1	0	1
POOL-PLUNGE	1	5	10.5	0.60	56	0	11	47	42	0	0	0
RAPID/BOULDERS	1	10	0.6	0.05	6	0	0	10	90	0	0	0
RIFFLE	4	61	4.0	0.15	251	0	6	30	62	1	0	1
RIFFLE W/ POCKETS	1	23	4.5	0.20	103	0	14	48	38	0	0	0
STEP/BEAVER DAM	1	3	3.0	0.10	8	0	0	40	60	0	0	0
STEP/COBBLE	1	7	3.5	0.15	25	0	5	29	67	0	0	0
STEP/LOG	1	5	7.5	0.10	34	0	0	40	60	0	0	0
Total:	32	545	4.2	0.50	2,504	0	Avg: 20	44	35	1	0	1

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	5	42	2.3	0.52	111	4.42%	0	0.0	
Scour Pools	17	391	5.2	0.71	1,965	78.47%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	5	84	4.1	0.16	354	14.13%	0	0.0	
Rapids	1	10	0.6	0.05	6	0.24%	0	0.0	
Cascades	1	5	0.5	0.05	2	0.09%	0	0.0	
Step/Falls	3	14	4.7	0.12	66	2.65%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

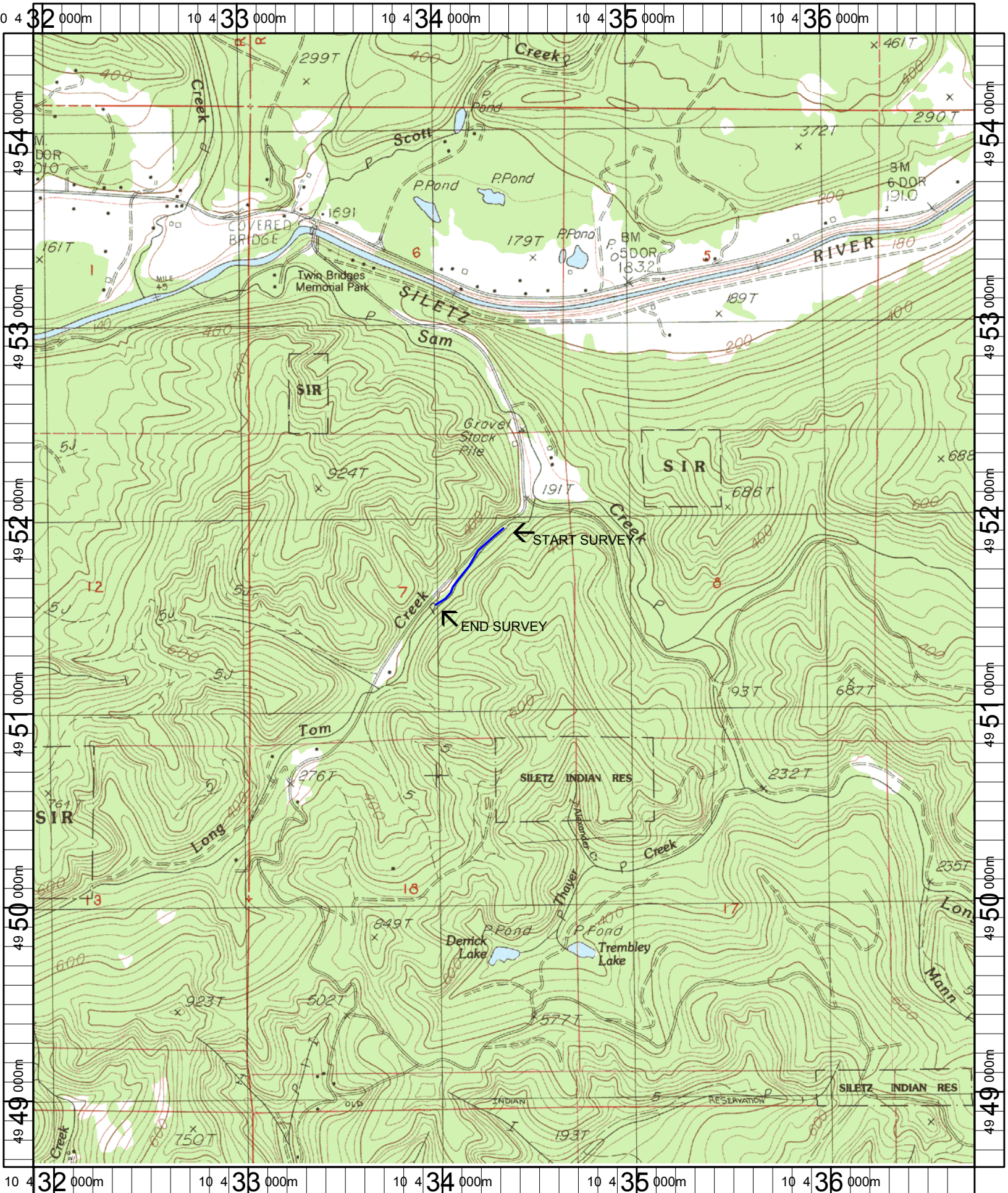
POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	22	40.3	43.6
Pools >=1m deep:	2	3.7	4.0
Complex pools (LWD pieces>=3):	9	16.5	17.8
Pool frequency (channel widths/pool):	4.0		
Residual pool depth (avg):	0.57		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **92** LONG TOM CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SC	00	7.1		T=7.0	
2	LP	00	32.3	BV		
3	RP	00	55.2	HS	SALMONID FRY	
4	LP	00	69.3	HS		
7	RI	00	116.4	BV	OLD BV DAM	
8	LP	00	153.9	HS, BV		
9	LP	00	179.5	HS	OLD BV DAM	
12	SD	00	239.2	BD	H = 0.3	
13	BP	00	255	BV		
14	LP	00	269.5	HS		
17	LP	01	315.5	HS		
20	IP	10	333.9		PERCHED IP - SPRING FED	
23	LP	01	395.2	HS	JUV SALMONIDS	
26	CB	11	420		T=7.0	
27	LP	00	437	HS	RESTORATION SITE 5	
32	RI	00	505.1		END SURVEY	



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

Location: 10 434345 E 4951563 N
 Caption: LONG TOM CREEK RESTORATION SITE - SILETZ BASIN