

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: July 12, 2006
SURVEY CREW: Annette Garrigues, Jeff Snyder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.3 km²
USGS MAPS: Eddyville
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Long Tom Creek habitat survey extended 480 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.0 (range: 3.0-7.0). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 0.6 percent. Beaver pools (49%) and scour pools (24%) dominated stream habitat. Silt (37%) and sand (37%) dominated stream substrate. Wood volume was moderate at 28.0 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.

REACH 1

T10S-R09W-S07SE

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	5.0	VWI Range:	3 - 7

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	480	2,370	0
Secondary Channel	0	0	0
Off-Channel Units	5	6	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<i>n = 5</i>	<u>First Terrace</u>	<i>n = 5</i>
Width: 4.6	Width: 5.2	6.0	(4.1 - 7.5)	6.9	(4.6 - 8.6)
Depth: 0.38	Height: 0.4	0.7	(0.4 - 1)	1.1	(0.6 - 1.4)

W:D ratio: 15.9
 Stream Flow Type: MF
 Average Unit Gradient: 0.6%
 Water temperature (°C): 15.0 - 15.0

Entrenchment (ACW:FPW ratio): 1.2
 Habitat Units/100m (total channel length): 4.3
 Habitat Units/100m (primary channel length): 4.4

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:	20%	Reach avg: 93%
Undercut Banks:	17%	Range: 61 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	50	10.4
Volume (m ³):	134	28.0
Key pieces (>=12m x 0.60m):	7	1.5

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

7/12/2006

REACH 1		T10S-R09W-S07SE					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	2	26	6.8	0.23	173	0	5	38	48	10	0	0
POOL-BACKWATER	1	5	1.3	0.20	6	0	90	10	0	0	0	0
POOL-BEAVER DAM	4	226	4.8	0.83	1,155	0	34	51	15	0	0	0
POOL-LATERAL SCOUR	5	108	5.1	0.60	569	0	19	42	39	0	0	0
RIFFLE	5	110	4.1	0.21	438	0	8	54	38	0	0	0
STEP/BEAVER DAM	4	11	4.0	0.01	35	0	100	0	0	0	0	0
Total:	21	485	4.6	0.38	2,376	0	Avg: 37	37	26	1	0	0

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	230	4.1	0.70	1,161	48.86%	0	0.0	
Scour Pools	5	108	5.1	0.60	569	23.96%	0	0.0	
Glides	2	26	6.8	0.23	173	7.29%	0	0.0	
Riffles	5	110	4.1	0.21	438	18.42%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	4	11	4.0	0.01	35	1.47%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY				
	<u>Total</u>	Total of all Channel Lengths		Primary Channel Length
		<u># / Km</u>		<u># / Km</u>
All Pools:	10	20.6		20.8
Pools >=1m deep:	0	0.0		0.0
Complex pools (LWD pieces>=3):	6	12.4		12.5
Pool frequency (channel widths/pool):	9.3			
Residual pool depth (avg):	0.60			

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

LONG TOM CREEK POST-TX
GCG: 2-MC SITE ID: 92

Survey Date 7/12/2006
Report Date: 3/5/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	732
Total conifers/1000 ft	20
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-30cm	0.0	1.0	0.0	1.3	0.0	2.3	0.0	4.7
30-50cm	0.0	1.0	0.3	4.0	0.0	1.3	0.3	6.3
50-90cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
>90cm	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
Total/100m2	0.0	2.7	0.3	5.7	0.0	3.7	0.1	4.0

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	84	78	64
Shrub cover	35	44	59
Grass/forb cover	52	41	37

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	50	67	100
High terrace	50	33	0
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	0
Riprap	0	0	0
Surface slope (%)	25	21	29

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	732
Total conifers/1000 ft	20
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	0.0
15-30cm	0.0	4.7
30-50cm	0.3	6.3
50-90cm	0.0	0.7
>90cm	0.0	0.3

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

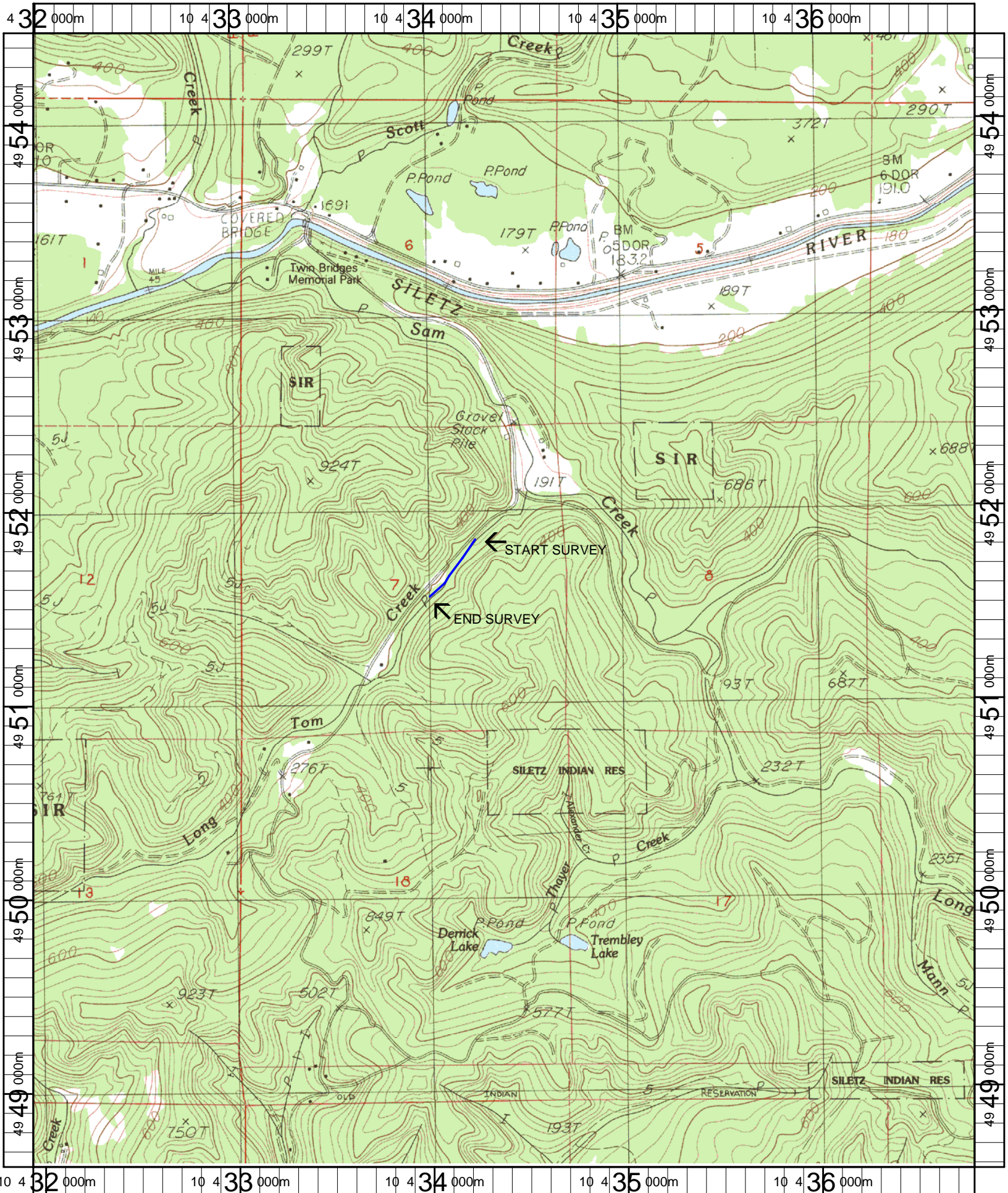
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
9	LF	1	HS	30	80	70	20	Conifer							
								Hardwood		1	1	2			
9	RT	2	HT	9	60	30	60	Conifer							
								Hardwood						1	
9	LF	2	HS	46	80	30	40	Conifer							
								Hardwood		1	3				
9	LF	3	HS	52	80	30	40	Conifer							
								Hardwood		2	1				
9	RT	1	HT	10	80	10	70	Conifer							NO TREES
								Hardwood							
9	RT	3	HS	14	10	20	70	Conifer							NO TREES
								Hardwood							
12	RT	3	HS	14	50	80	10	Conifer							NO TREES
								Hardwood							
12	RT	2	HT	4	70	60	20	Conifer							
								Hardwood			2				
12	RT	1	HT	10	85	20	80	Conifer							
								Hardwood			1				
12	LF	3	HS	32	85	85	60	Conifer							
								Hardwood		4	2				
12	LF	2	HS	22	85	75	75	Conifer							
								Hardwood		1	4				
12	LF	1	HT	25	90	40	80	Conifer							TRANS, NO TREES
								Hardwood							
17	RT	2	HS	12	80	60	30	Conifer							
								Hardwood			2				
17	RT	3	HS	18	80	60	30	Conifer							
								Hardwood			1				
17	RT	1	HS	21	80	60	30	Conifer							NO TREES
								Hardwood							
17	LF	3	HS	41	80	80	10	Conifer							
								Hardwood		1					
17	LF	2	HS	31	90	10	20	Conifer				1			
								Hardwood		2	1				
17	LF	1	HS	51	90	10	30	Conifer							UTM 0434073-4951567 3D
								Hardwood		2	1				

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	GL	00	10.6		CA/MT, D30 90%, C30 10%	T=15.0C
2	LP	00	36.5	HS		
3	RI	00	59.2	HS	HS	
5	SD	00	75.5	BD	H=0.40M	H=0.40M
6	BP	00	94.7	BV		
8	LP	00	138.2	HS		RIPARIAN #1
9	SD	00	144.4	BD	H=0.40M	H=0.40M
10	BP	00	221.7	HS, BV		
11	SD	00	223.8	BD	H=0.70M, BV	H=0.50M
12	BP	00	326.3	HS, BV, WL		RSN
14	LP	01	372.4	HS	RSN	
15	BW	10	372.4	WL		RSN
16	RI	00	397.3	SS/		RIPARIAN #3
17	LP	00	415.5	HS		
18	RI	00	426.4	BV		
19	SD	00	427.3	BD	H=0.30M	H=0.30M
20	BP	00	454.2	BV		
21	RI	00	480.1	SS/		END SURVEY



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

Location: 10 434386 E 4951525 N
 Caption: LONG TOM CREEK RESTORATION SITE - SILETZ BASIN