ODFW AQUATIC INVENTORY PROJECT

OREGON PLAN FOR SALMON & WATERSHEDS

STREAM RESTORATION HABITAT REPORT

STREAM:	Long Prairie Creek (MC-46)
BASIN:	Siletz River
SURVEY TYPE:	Post-Tx
DATE:	August 1, 2006
SURVEY CREW:	Annette Garrigues, Jeff Snyder
REPORT PREPARED BY:	Paul Jacobsen
BASIN AREA:	13.4 km^2
USGS MAPS:	Eddyville
ECOREGION:	Coast Range Sedimentary

GENERAL DESCRIPTION:

The Long Prairie Creek habitat survey extended 481 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.2 (range: 5.9-11.1). Land use for the reach was second growth (15-30 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 0.7 percent. Beaver pools (77%) dominated stream habitat. Silt (44%) and sand (28%) dominated stream substrate. Wood volume was moderate at 26.2 m^3/100m.

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 6/29/00	Post 7/19/01	Post 8/1/06		
Habitat Variable	**Desirable**	**Undesirable**					
% Pool Area	>35%	<10%	92.4	95.3	94.1		
Number of Pools			20	**7**	**10**		
Deep Pools/km (>1.0 m)			10.0	**7.1**	**3.9**		
% Off-Channel			0.3	0.4	1.2		
LWD – Pieces/100m	>20	<10	8.7	**10.6**	**7.3**		
LWD – Volume/100m	>30	<20	7.9	**19.1**	**26.2**		
LWD – Key Pieces/100m	>3	<1	0.0	**1.8**	**3.5**		
Large Wood Jams/km			6.1	**7.2**	**4.2**		
% Riffle Fines	<10	>20	10	26	**46**		
% Riffle Gravel	>35	<15	35	**61**	47		
% Bedrock			0	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. What is important is that the large wood is being retained in the treated reach and is accumulating additional volume and key pieces. Deep pools were reduced, but that may be a symptom of stream flows rather than an actual change. The reach remains pool-rich, but the number of pools has decreased. Riffle fines seem higher, while gravel had increased but is again lower with time. However, substrate changes may only be the result of between-crew variability rather than actual change.

OREGON DEPT OF FISH AND WILDLIFE **LONG PRAIRIE CREEK POST-TX (2-MC, 46)**

HABITAT INVENTORY Report Date: 2/27/2007 Survey Date: 8/1/2006

REACH 1 **T10S-R09W-S17NW** **REACH 1**

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%

Valley Width Index 8.2 VWI Range: 5.88 - 11.1

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

Type	Length (m)	Area (m2)	Dry Units
Primary Channel	481	3,211	0
Secondary Channel	0	0	0
Off-Channel Units	32	39	0

Channel Dimensions (m)

Wetted		Active		Floodprone *n* = 4		First Terrace *n* = 4	
Width:	4.8	Width:	7.8	11.8	(8.5 - 14.8)	14.6	(11.2 - 17.8)
Depth:	0.35	Height:	0.4	0.8	(0.7 - 0.9)	1.4	(1.15 - 1.6)

W:D ratio: 20.0
Entrenchment (ACW:FPW ratio): 1.7
Stream Flow Type: MF
Habitat Units/100m (total channel length): 4.1
Average Unit Gradient: 0.7%
Habitat Units/100m (primary channel length): 4.4
Water temperature (°C): 14.0 - 14.0

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	ST	MT
Riparian Vegetation:	S	G

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding:	30%	Reach avg: 74%
Undercut Banks:	16%	Range: 50 - 100

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	35	7.3
Volume (m^3):	126	26.2
Key pieces (>=12m x 0.60m):	17	3.5

OREGON DEPT OF FISH AND WILDLIFE **LONG PRAIRIE CREEK POST-TX (2-MC, 46)**

HABITAT INVENTORY Report Date: 3/5/2007 Survey Date: 8/1/2006

REACH 1 **T10S-R09W-S17NW** **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-BACKWATER	2	11	1.2	0.06	15	0		65	35	0	0	0	0
POOL-BEAVER DAM	5	371	6.4	0.90	2,482	0		41	42	8	3	0	6
POOL-LATERAL SCOUR	3	58	9.1	0.58	560	0		28	55	13	3	0	0
RAPID/BOULDERS	1	13	1.1	0.10	14	0		0	0	25	75	0	0
RIFFLE	3	37	2.5	0.20	100	0		3	43	47	7	0	0
STEP/BEAVER DAM	5	14	5.2	0.01	60	0		100	0	0	0	0	0
STEP/COBBLE	2	10	1.9	0.07	19	0		0	10	40	50	0	0
Total:	21	513	4.8	0.35	3,250	0	**Avg:**	44	28	15	10	0	1

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m^2)	Percent	Large Boulders Number	(# / $100m^2$)
Dammed & BW Pools	7	382	4.9	0.66	2,497	76.84%	0	0.0
Scour Pools	3	58	9.1	0.58	560	17.24%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	3	37	2.5	0.20	100	3.06%	0	0.0
Rapids	1	13	1.1	0.10	14	0.42%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	7	24	4.3	0.03	79	2.43%	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:	10	19.5	20.8
Pools >=1m deep:	2	3.9	4.2
Complex pools (LWD pieces>=3):	3	5.8	6.2
Pool frequency (channel widths/pool):	6.6		
Residual pool depth (avg):	0.77		

OREGON DEPARTMENT OF FISH AND WILDLIFE **LONG PRAIRIE CREEK POST-TX**

HABITAT INVENTORY **GCG: 2-MC** **SITE ID: 46**

Survey Date 8/1/2006

Report Date: 3/5/2007

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 2 transects

Total hardwoods/1000	213
Total conifers/1000 ft	0
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	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
class (cm)	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
15-30cm	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
30-50cm	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
50-90cm	0.0	0.5	0.0	0.5	0.0	0.5	0.0	1.5
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	0.5	0.0	0.5	0.0	2.5	0.0	1.2

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	70	70	73
Shrub cover	45	45	63
Grass/forb cover	20	28	20

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	25	25	25
High terrace	75	75	75
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 (%)	29	13	8

OREGON DEPARTMENT OF FISH AND WILDLIFE **LONG PRAIRIE CREEK POST-TX**

HABITAT INVENTORY - RIPARIAN SURVEY **GCG: 2-MC** **SITE ID: 46** **8/1/2006**

Summary of Riparian Zone (0-30m) for all reaches **2 transects**

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

Total hardwoods/1000	213
Total conifers/1000 ft	0
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 0-30 meters Conifer	Hardwood
3-15cm	0.0	1.0
15-30cm	0.0	0.5
30-50cm	0.0	0.5
50-90cm	0.0	1.5
>90cm	0.0	0.0

OREGON DEPT OF FISH AND WILDLIFE **LONG PRAIRIE CREEK POST-TX (2-MC:46)**

HABITAT INVENTORY Report Date: 3/5/2007 Survey Date: 8/1/2006

GCG: 2-MC SITE ID: 46

RIPARIAN ZONE VEGETATION

Reach 1 Reach 1

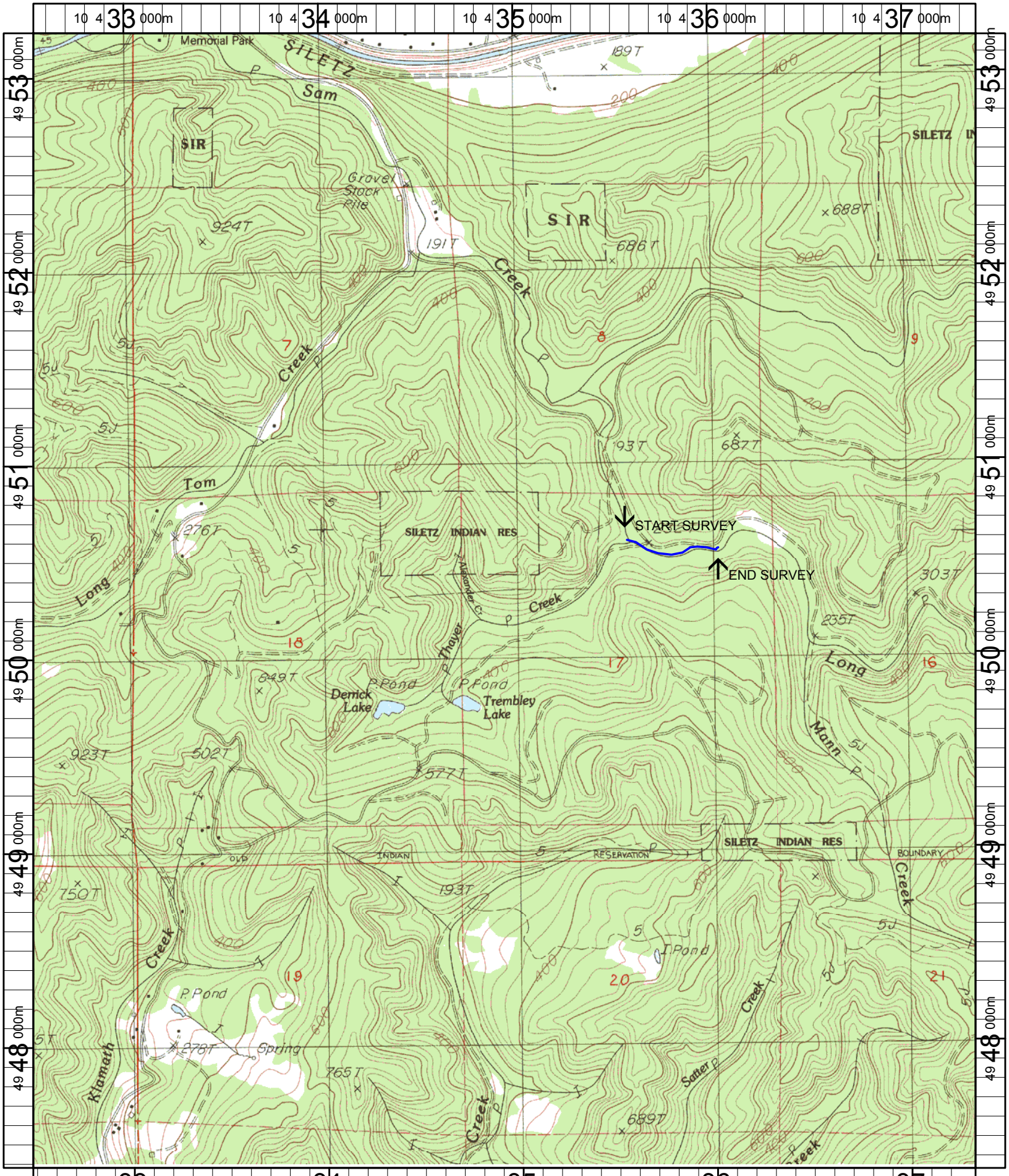
Unit	Side	Zone	Surface	Slope	Cover (percent) Canopy	Shrub	Grass		Diameter class (cm) 3-15	15-30	30-50	50-90	>90	Notes
11	RT	3	HT	6	90	70	10	**Conifer**						NO TREES
								Hardwood						
11	RT	2	HT	7	80	80	10	**Conifer**						NO TREES
								Hardwood						
11	RT	1	HT	16	70	80	10	**Conifer**						TRANS, NO TREES
								Hardwood						
11	LF	2	HS	31	40	30	60	**Conifer**						UTM 0435694-4950486 3D
								Hardwood						
11	LF	3	HS	13	50	50	30	**Conifer**						
								Hardwood	2	1	1			
11	LF	1	HS	67	50	40	40	**Conifer**						LEFT LARGE HARDWOOD
								Hardwood						
19	RT	3	HT	7	70	60	20	**Conifer**						SHRUB COVER
								Hardwood						
19	LF	1	HT	18	80	20	20	**Conifer**						TRANS
								Hardwood				1		
19	LF	2	HT	3	80	30	30	**Conifer**						UTM 0435887-4950530 3D
								Hardwood				1		
19	RT	2	HT	9	80	40	10	**Conifer**						SHRUB CANOPY
								Hardwood						
19	RT	1	HT	14	80	40	10	**Conifer**						TRANS, NO TREES
								Hardwood						
19	LF	3	HT	6	80	70	20	**Conifer**						LARGE HARDWOOD
								Hardwood				1		

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	36.4	HS, /TJ	COHO, CH METRIC IN RI BEF	COHO
2	RI	11	36.4		T=13.0C	T=13.C, UTM 0435551-4950
6	SC	00	56.6		H=0.10M	
7	LP	00	67.4	BV, HS		
8	RI	00	82.7	BV		
9	SD	00	84.8	BD	H=0.60M, BV	H=0.60M
10	BP	00	193.8	BV		FISH
11	SD	00	196.3	BD	RIPARIAN #1, H=0.40M, BV	H=0.40M
12	BP	00	243.4	BV	COHO	FISH, COHO
13	SD	00	244.8	BD	H=0.20M, BV	H=0.20M
14	BP	01	296.1	BV, /TJ		
15	RB	11	296.1			UTM 0435782-4950495 3D
16	SD	00	298.4	BD, HS	H=0.50M, BV	H=0.50M
17	BP	00	445.9	BV	DJ, HS	
18	SD	00	451.6	BD	DJ, BV, H=0.35M, RIPARIAN#	H=0.35M
19	BP	00	467.7	BV	COHO, RED-LEGGED FROG,	
20	RI	01	481	END SURVEY		
21	BW	10	481	WL	RSN	RSN



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