

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

STREAM: Long Prairie Creek (MC-222)
BASIN: Siletz River
SURVEY TYPE: Post-Tx
DATE: February 7, 2007
SURVEY CREW: Ryan Jacobsen, Jeremy Romer
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 9.7 km²
USGS MAPS: Eddyville
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Long Prairie Creek habitat survey extended 2,462 meters. The channel was alternately constrained by hillslope and multiple terraces in a broad valley floor. The average valley width index was 6.2 (range: 1-20). Land use for the reach was timber harvest and second growth timber (15-30 cm dbh). The average unit gradient was 0.8 percent. Scour pools (49%) and riffles (42%) dominated stream habitat. Gravel (44%), sand (19%) and bedrock (16%) dominated stream substrate. Wood volume was moderate at 26.2 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.

Beaver activity was noted throughout the survey. 5 adult salmon carcasses, juvenile salmonids, a crayfish, rough-skinned newts and a frog were observed during the survey.

REACH 1

T10S-R09W-S16NE

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:	1 - 20

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	2,462	11,104	0
Secondary Channel	198	495	4
Off-Channel Units	80	94	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 9	<u>First Terrace</u> n = 8
Width: 4.0	Width: 7.0	10.3 (6.6 - 16.7)	12.5 (7.6 - 25)
Depth: 0.42	Height: 0.5	0.9 (0.7 - 1.2)	1.2 (1 - 1.4)

W:D ratio: 16.7
 Stream Flow Type: MF
 Average Unit Gradient: 0.8%
 Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 1.6
 Habitat Units/100m (total channel length): 4.9
 Habitat Units/100m (primary channel length): 5.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	ST
Riparian Vegetation:	D30	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):	238	9.7
Volume (m ³):	646	26.2
Key pieces (>=12m x 0.60m):	33	1.3

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

2/7/2007

REACH 1		T10S-R09W-S16NE					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	2	16	0.6	0.05	8	0	0	12	64	24	0	0
DRY CHANNEL	1	13	1.2	0.00	16	0	5	42	53	0	0	0
DRY UNIT	1	55	3.4	0.00	187	0	32	53	11	0	5	0
POOL-BACKWATER	3	20	1.9	0.47	37	0	20	34	25	4	3	14
POOL-DAMMED	2	66	4.6	0.70	273	0	3	41	47	8	0	2
POOL-LATERAL SCOUR	58	1,275	4.4	0.73	5,590	0	7	27	39	9	5	12
POOL-PLUNGE	2	18	7.0	0.65	128	0	2	14	17	17	5	45
PUDDLED UNIT	2	33	2.2	0.15	75	0	41	46	11	3	0	0
RAPID/BEDROCK	1	18	7.5	0.05	135	0	0	0	0	0	0	100
RAPID/BOULDERS	3	30	1.3	0.12	40	0	0	4	44	39	0	13
RIFFLE	34	968	4.1	0.17	4,370	0	0	9	46	13	5	28
RIFFLE W/ POCKETS	4	142	3.6	0.33	499	0	0	17	67	14	1	1
STEP/BEDROCK	2	14	4.1	0.13	60	0	2	2	2	0	0	93
STEP/COBBLE	13	67	3.9	0.14	268	0	0	4	82	10	3	0
STEP/LOG	5	6	2.9	0.04	9	0	19	29	35	7	0	10
Total:	133	2,739	4.0	0.42	11,693	0	Avg: 5	19	44	11	4	16

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	85	3.0	0.56	309	2.65%	0	0.0	
Scour Pools	60	1,293	4.4	0.72	5,718	48.90%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	38	1,109	4.1	0.18	4,869	41.64%	0	0.0	
Rapids	4	48	2.9	0.10	175	1.50%	0	0.0	
Cascades	2	16	0.6	0.05	8	0.07%	0	0.0	
Step/Falls	20	87	3.6	0.11	337	2.88%	0	0.0	
Dry	4	101	2.2	0.08	277	2.37%	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:	65	23.7	26.4
Pools >=1m deep:	9	3.3	3.7
Complex pools (LWD pieces>=3):	19	6.9	7.7
Pool frequency (channel widths/pool):	6.0		
Residual pool depth (avg):	0.49		

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: **2-MC** SITE ID: **222** **LONG PRAIRIE CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
1	LP	00	10		T=8.0C
5	RI	00	42.2		CA/CT/G/S/ST
7	LP	00	70.3	BV	
12	LP	00	156.3	BV	
15	SL	02	165.7		H=0.20M
18	LP	01	184.4	/TJ	
19	CB	11	184.4		ACW=0.80M, T=8.0C
21	RI	00	212.9	WL	ADULT SALMON CARCASS
23	RI	01	248.1	/TJ	
24	SL	11	248.1		H=2.30M, ACW=0.80M, T=8.0C
25	LP	00	278.8	BV	
26	SC	00	282.8		CA/MT/D15/G/ST
28	LP	00	356.5	BV	JUVENILE SALMONIDS
30	LP	00	385.8	BV	
31	RI	00	397.8	BV	
36	LP	00	501.7	BV	
37	SL	00	502.2	BV	H=0.20M
39	SC	00	552.7	CE/	
42	PD	02	615.7	SS/, WL	RSN, SALMONID FRY
43	RP	00	655.7		POCKET 0.6 x 3 x 2
44	LP	00	698.7		ADULT SALMON CARCASS

Comment Summary

Restoration Monitoring Sites 2007

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
45	RI	00	714.6		CA/MT/D30/G/ST/LT
46	LP	00	757.6	HS	
47	SC	00	759.2		H=0.20M
49	RP	00	832.2	CS/	
50	LP	01	850.2	HS, /TJ	
51	CB	11	850.2		ACW=1.20M, T=8.0C
53	LP	00	889.2	WL	FROG
57	LP	00	965.2	BV	
58	RI	00	1008.2	/SS	
60	LP	00	1055.2	BV	
64	LP	00	1141.4	HS	
66	LP	00	1202.4	HS	
67	SC	01	1210.4	HS, TJ/	
68	RI	11	1210.4		ACW=1.50M, T=9.0C
70	RI	01	1257.4		ADULT SALMON CARCASS
72	LP	00	1272.4	BV	
73	RI	00	1310.4		CA/CT/D30/S/TH/ST
74	LP	00	1332.4	HS	
75	RI	00	1392.4	/SS	
76	LP	00	1419.4	BV	
83	LP	00	1576.4	BC, CS/	

Comment Summary

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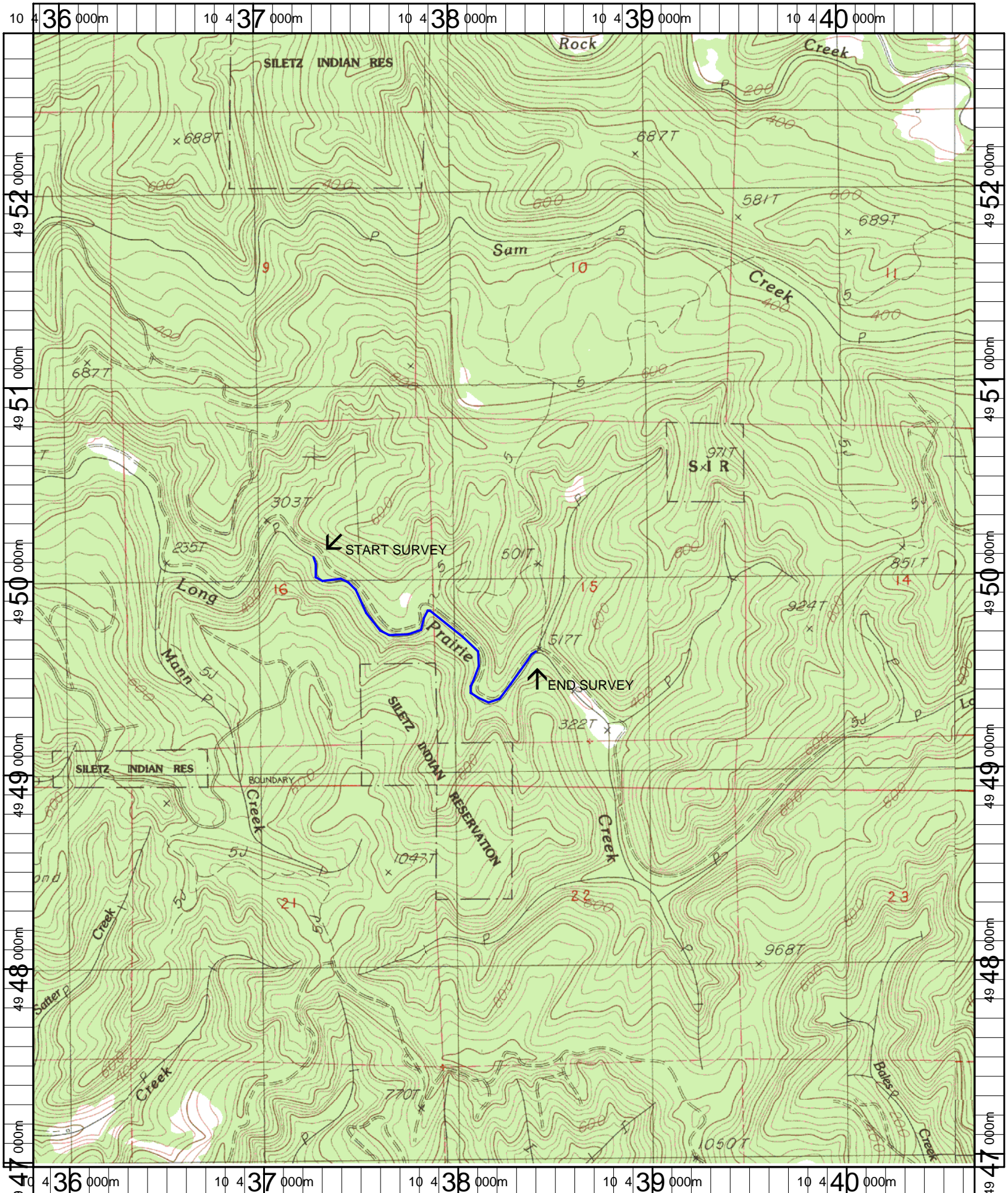
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
84	SC	00	1579.9		START DAY 2, 2/8/07
85	LP	00	1596.9	BV	
86	RI	01	1627.9		CH/MV/M30/G/TH/ST
87	SC	02	1627.9		H=0.25M
89	SL	02	1627.9		H=0.70M
92	RR	01	1661.6	HS	
93	DP	00	1684.1	BV	
94	LP	00	1720.7	HS	
96	LP	00	1764.1	BV	BEAVER DEN LEFT
99	LP	00	1817.1	BV	
103	RI	01	1912.6	BC, /CS	
106	RI	01	1962.6	HS, /TJ	CA/CT/M30/S/TH/LT
107	RB	11	1962.6		ACW=1.30M, T=9.0C
109	RI	01	2062.6	HS	
112	RI	01	2095.6	/TJ	
113	RB	11	2095.6		ACW=1.20M, T=9.0C
115	RI	00	2140.6	HS	
116	LP	00	2160.6	HS	2 ADULT SALMON CARCASSES
121	SR	00	2246		H=0.30M, CH/MV/D30/S/TH/YT
125	LP	00	2365	CS/	CRAYFISH
130	PP	00	2441.5	HS	

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 2-MC SITE ID: 222 LONG PRAIRIE CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
131	SL	00	2442		H=0.35M
132	RI	01	2462	TJ/	END, CH/MV/D15/S/YT/TH
133	RB	11	2462		ACW=3.00M, T=9.0C



Name: EDDYVILLE
 Date: 5/9/2007
 Scale: 1 inch equals 2000 feet

Location: 10 438262 E 4949882 N
 Caption: LONG PRAIRIE CREEK #222 RESTORATION SITE - SILETZ BASIN