

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

STREAM: Long Prairie Creek (MC-222)
BASIN: Siletz River
SURVEY TYPE: Pre-Tx
DATE: July 28, 2004
SURVEY CREW: Erin Richmond, Jeff Snyder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 13.4 km²
USGS MAPS: Eddyville
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Long Prairie Creek habitat survey extended 2,302 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 7.3 (range: 3.0-11.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (58%) dominated stream habitat. Gravel (31%) and sand (29%) dominated stream substrate. Wood volume was low at 9.2 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.

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	7.3	VWI Range:	3 - 11

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	2,302	8,758	0
Secondary	86	125	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 3.5	Width: 7.0	7.6 (5 - 9.3)	9.2 (6 - 12.5)
Depth: 0.37	Height: 0.5	1.0 (0.8 - 1.2)	2.3 (1.2 - 3.2)

W:D ratio: 13.5

Stream Flow Type: LF

Average Unit Gradient: 0.9%

Water temperature (°C): 16.0 - 16.0

Entrenchment (ACW:FPW ratio): 1.1

Habitat Units/100m (total channel length): 5.9

Habitat Units/100m (primary channel length): 6.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	19%	Reach avg: 71%
Undercut Banks:	31%	Range: 22 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	178	7.7
Volume (m ³):	211	9.2
Key pieces (>=12m x 0.60m):	14	0.6

OREGON DEPARTMENT OF FISH AND WILDLIFE

LONG PRAIRIE CREEK PRE-TX (MC-222)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/28/2004

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	3	30	1.0	0.17	29	40	0	0	13	63	23	0	
GLIDE	2	43	6.0	0.30	256	1	0	40	30	0	0	30	
POOL-BACKWATER	6	26	2.5	0.37	66	0	38	52	10	0	0	0	
POOL-BEAVER DAM	1	39	4.0	0.60	156	4	10	10	30	30	10	10	
POOL-LATERAL SCOUR	61	1,160	4.1	0.57	4,807	56	16	36	28	5	1	14	
POOL-TRENCH	5	85	4.2	0.38	348	4	0	14	12	4	0	70	
RAPID/BEDROCK	11	330	4.8	0.14	1,545	5	0	7	1	0	0	92	
RIFFLE	42	541	2.2	0.20	1,342	76	3	30	52	9	0	5	
RIFFLE W/ POCKETS	5	128	2.4	0.24	291	93	0	4	36	34	24	2	
STEP/BEAVER DAM	1	1	3.0	0.01	4	0	100	0	0	0	0	0	
STEP/BEDROCK	1	1	9.0	0.10	6	0	0	0	0	0	0	100	
STEP/COBBLE	1	5	6.0	0.10	30	0	0	0	20	80	0	0	
STEP/LOG	1	1	2.0	0.10	1	0	100	0	0	0	0	0	
Total:	140	2,388	3.5	0.37	8,883	279	Avg: 11	29	31	9	2	19	

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	7	65	2.7	0.40	222	2.50%	4	1.8
Scour Pools	66	1,245	4.1	0.56	5,155	58.03%	60	1.2
Glides	2	43	6.0	0.30	256	2.88%	1	0.4
Riffles	47	669	2.2	0.21	1,634	18.39%	169	10.3
Rapids	11	330	4.8	0.14	1,545	17.40%	5	0.3
Cascades	3	30	1.0	0.17	29	0.33%	40	137.9
Step/Falls	4	8	5.0	0.08	42	0.47%	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:	73	30.6	31.7
Pools >=1m deep:	3	1.3	1.3
Complex pools (LWD pieces>=3):	19	8.0	8.3
Pool frequency (channel widths/pool):	4.7		
Residual pool depth (avg):	0.44		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	508
Total conifers/1000 ft	183
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	0.7	1.0	3.0	1.0	3.7
15-30cm	0.0	0.0	0.3	0.3	1.7	1.3	2.0	1.7
30-50cm	0.0	2.0	0.0	0.3	0.0	0.7	0.0	3.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	2.0	0.3	1.3	2.7	5.0	1.0	2.8

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	40		48		68	
Shrub cover	53		47		35	
Grass/forb cover	35		35		42	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		33		100	
High terrace	50		17		0	
Low terrace	17		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	17		50		0	
Riprap	0		0		0	
Surface slope (%)	15		26		71	

Comment Summary

Oregon Plan Monitoring Sites 2002

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	01	3	HS	TEMP=16 DEG C AT 13:00	TEMP=16 DEG C
2	BW	10	3		CO FRY- 30	COHO
3	LP	00	19			COHO
5	LP	00	38.3			COHO
6	RI	00	46.6		BRAIDED CHANNEL	
7	LP	00	70	HS		COHO
8	RI	01	78.6	HS		
9	BW	10	78.6			COHO
10	LP	00	88.4	HS		COHO
11	RI	00	99.2	HS		COHO
12	LP	00	134.2	HS	CO FRY- 20	COHO
13	RI	00	150.2	HS		
14	LP	00	166.2	/SS HS		COHO, STLHD
15	RI	00	207.8	WL, HS		ELK TRACKS
16	LP	00	238.8	/SS	COHO	ELK TRACKS
17	RI	00	244			COHO
18	LP	00	269			COHO
19	LP	00	289.1			COHO
20	RI	00	294.4			COHO
21	LP	00	320.1	HS		COHO
22	RI	00	327.3			COHO

Comment Summary

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
23	LP	00	338.3			COHO
24	LP	00	349			COHO
25	RI	00	361			COHO
26	LP	00	378			COHO
27	RI	00	387	HS		COHO
28	LP	00	413.4			COHO
29	RI	00	426			COHO
30	LP	00	460.4	HS		A LOT OF COHO
31	RI	00	479.3			COHO
32	LP	00	501.3			M/R 1
33	LP	00	522.1		RIP 1 AND METRICS	COHO
34	RI	00	528.8	HS	CRAYFISH	
35	LP	00	538.8			COHO
36	LP	01	563.4			COHO
37	BW	10	563.4	WL	CO FRY- 10	TRACKS- ELK, DEER
38	RI	00	570.2	WL	CT	GAME TRACKS
39	LP	00	586.6			STHD, CUTT
40	RI	00	607	RB/		
42	LP	00	639.9			COHO
44	LP	00	661.4	HS		BEAVER ACTIVITY, COHO
45	LP	00	671.9			COHO

Comment Summary

Oregon Plan Monitoring Sites 2002

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
46	RI	00	677.9		RSN	
47	LP	00	699.1			COHO
49	LP	00	719.8			COHO
50	LP	00	737.3	COHO		
51	RI	00	752.6	COHO		
52	LP	00	763.6			COHO
54	LP	01	805.1	HS	/TJ	/TJ, COHO
55	CB	11	805.1		CASCADE OVER CBBLE T	
57	BW	10	811.1			COHO
58	LP	00	839.8			COHO
59	LP	00	860.8			COHO
60	LP	00	874.8			COHO
61	RI	00	881.6			TEMP=14 DEG C
62	SD	00	883	BV, BD		BEAVER DAM
63	BP	00	922.1	BV	CO FRY- 30	BEAVER POOL
65	LP	00	939.3			COHO
67	TP	01	962.1			COHO
68	BW	10	962.1			COHO
70	LP	00	989.4			COHO
71	RI	00	1010.4		RIP 2 AND METRICS	M/R 2
72	LP	00	1040.4			COHO

Comment Summary

Oregon Plan Monitoring Sites 2002

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
74	BW	10	1045.4			COHO
75	LP	00	1089.7	HS		COHO
76	RI	00	1095.7		DEAD KINGFISHER	COHO
77	LP	00	1126.8	WL, HS		COHO, DEER TRACKS
79	LP	00	1157			COHO
81	LP	00	1204.1			COHO
83	GL	00	1232.1			COHO
85	LP	00	1262			COHO
86	RI	00	1322		BRAIDED CHANNEL	COHO
87	LP	00	1346.4		CO FRY-10	COHO
89	LP	00	1408			COHO
90	RI	00	1415.5		BDRCK	
91	TP	00	1429		LOTS O COHO	COHO
92	RP	00	1462.4	HS	BRAIDED	COHO
93	LP	00	1472.7		COHO	COHO
94	LP	00	1499.1	BC	COHO	COHO
95	RI	00	1506.1		COHO	COHO
96	TP	00	1519.7		COHO	COHO
97	RR	00	1540.5		COHO	
98	RI	00	1552.6		COHO	
99	LP	00	1570.6	COHO	LG TROUT	PHOTO 105 AND 106

Comment Summary

Oregon Plan Monitoring Sites 2002

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

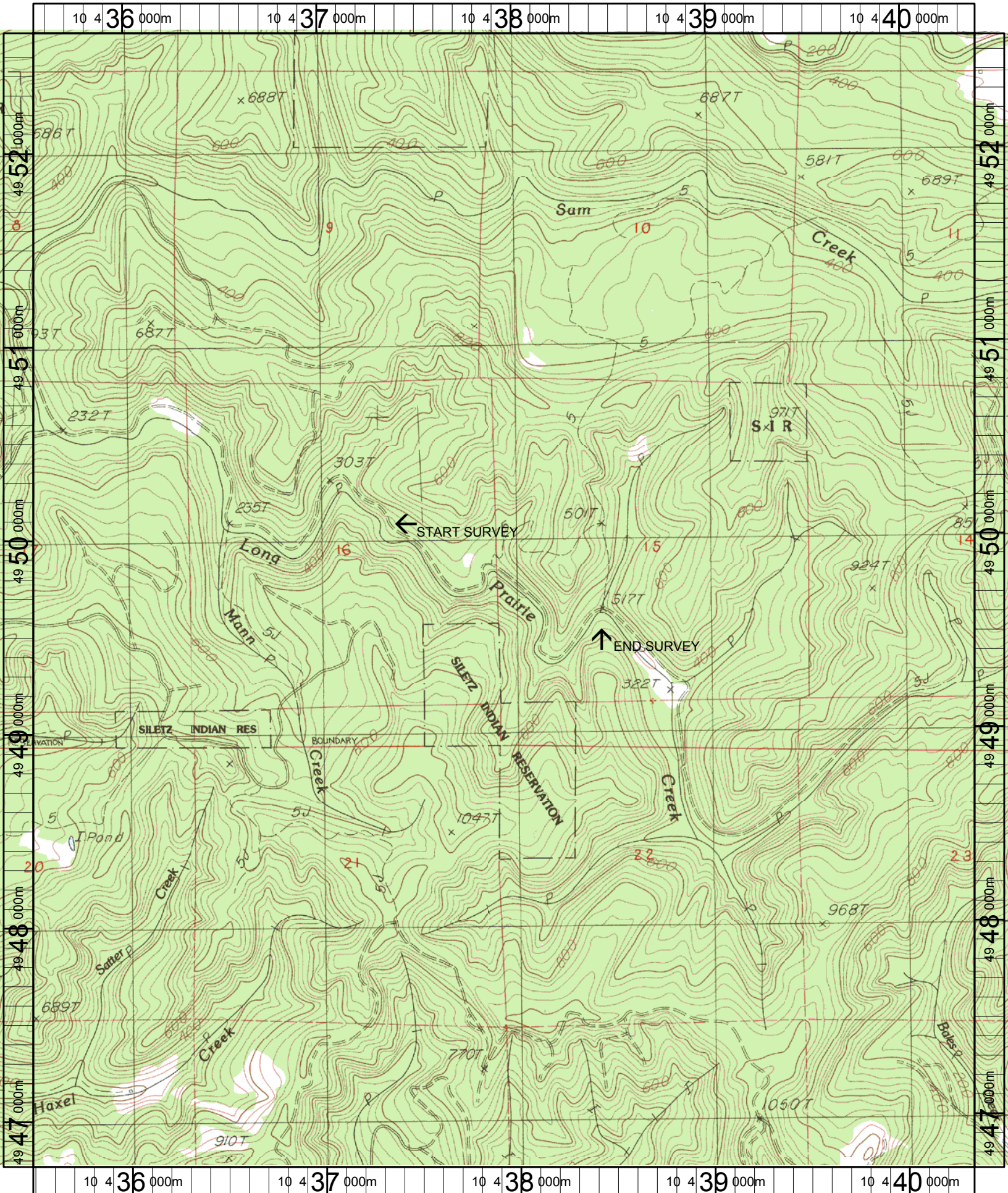
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
100	RR	00	1582			6 PERCENT SLOPE
101	RR	00	1590.8		BDRCK	1 PERCENT SLOPE
102	LP	00	1607.8		COHO	COHO
103	TP	00	1631.6		COHO	COHO
104	RI	00	1641.8		COHO	
105	GL	00	1664.5		COHO	COHO
106	RR	00	1713.5		CRAYFISH	
107	LP	00	1726.9		COHO	COHO, CRAYFISH
109	LP	00	1746.9			COHO
110	RR	00	1752.9			BEDROCK
111	LP	00	1763.9		COHO	
112	RP	00	1789.2	BC	RIP 3 AND METRICS	M/R 3
113	LP	01	1800.7			COHO
114	RP	01	1819.3			COHO
115	RP	02	1819.3			COHO
116	LP	00	1827.4	DJ		
117	RR	01	1894.7	/TJ	/TJ	
118	CB	11	1894.7		T=14 DEG C AT 1:30, AC	TEMP=14 DEG C
121	LP	00	2017.7		COHO	COHO, CUTT
123	LP	00	2068.4		COHO	PHOTO 107, 108
124	RR	00	2080.4	WL	RSN	SINGLE CHUTE

Comment Summary

Oregon Plan Monitoring Sites 2002

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<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
128	LP	00	2145.7			COHO
129	SR	00	2146.4		H=.5M	H=0.5M
130	RR	00	2163.7			COHO
131	LP	00	2186.1			COHO
132	LP	00	2232.6		CLEARCUT/	CLEARCUT ON LF SIDE OF S
133	LP	00	2247.6		WASP NEST, BA	
134	LP	00	2251.2			COHO
136	LP	00	2279.7	DJ/JS		COHO
137	SL	00	2280.3			H=0.5M
139	RI	01	2302.4		TJ/	END OF SURVEY
140	CB	11	2302.4	TJ/	T=15 DEG C AT 2:30 AC	



Name: EDDYVILLE
 Date: 6/14/2004
 Scale: 1 inch equals 2000 feet

Location: 10 437934 E 4949677 N
 Caption: LONG PRAIRIE CREEK RESTORATION SITE - SILETZ BASIN