

**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: July 12, 2005
SURVEY CREW: Brad Markle, Sheila Davis, Jeremy Romer
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 2,340 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 6.8 (range: 1.5-20.0). Land use for the reach was second growth (15-30 cm dbh) trees and timber harvest. The average unit gradient was 1.4 percent. Scour pools (54%) dominated stream habitat. Gravel (47%) dominated stream substrate. Wood volume was moderate at 24.0 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-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	6.8	VWI Range:	1.5 - 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	2,340	10,115	0
Secondary Channel	65	176	2
Off-Channel Units	115	163	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 5
Width: 3.9	Width: 6.5	8.4 (5.8 - 11)	9.8 (6.8 - 12.7)
Depth: 0.38	Height: 0.5	1.1 (1 - 1.1)	1.2 (1.1 - 1.5)

W:D ratio: 12.4
 Stream Flow Type: MF
 Average Unit Gradient: 1.4%
 Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 5.6
 Habitat Units/100m (primary channel length): 6.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
Riparian Vegetation:	D30	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	13%	Reach avg: 74%
Undercut Banks:	3%	Range: 25 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	373	15.9
Volume (m ³):	561	24.0
Key pieces (>=12m x 0.60m):	43	1.8

OREGON DEPT OF FISH AND WILDLIFE

LONG PRAIRIE CREEK POST-TX (2-MC, 222)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/12/2005

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	
POOL-ALCOVE	2	17	2.7	0.45	57	0	85	15	0	0	0	0	
POOL-BACKWATER	1	7	3.8	0.30	27	1	27	50	14	0	9	0	
POOL-LATERAL SCOUR	66	1,147	4.8	0.66	5,546	55	9	30	39	5	1	16	
POOL-PLUNGE	1	10	9.0	0.70	87	3	10	30	15	0	5	40	
PUDDLED UNIT	2	42	1.8	0.20	83	0	8	18	65	10	0	0	
RAPID/BEDROCK	10	342	5.3	0.07	1,846	14	1	5	7	2	1	83	
RAPID/BOULDERS	6	115	2.2	0.08	354	29	2	10	66	17	4	1	
RIFFLE	27	543	2.7	0.12	1,641	41	5	9	70	7	2	7	
RIFFLE W/ POCKETS	5	188	2.4	0.21	511	0	4	31	48	11	0	7	
STEP/BEDROCK	3	22	5.4	0.08	95	4	2	3	3	2	2	88	
STEP/COBBLE	18	87	2.4	0.09	202	13	0	8	76	13	2	1	
STEP/LOG	1	1	3.8	0.05	3	0	0	40	50	10	0	0	
Total:	142	2,520	3.9	0.38	10,454	160	Avg: 7	20	47	7	2	17	

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	3	24	3.0	0.40	85	0.81%	1	1.2	
Scour Pools	67	1,156	4.8	0.66	5,633	53.89%	58	1.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	32	731	2.7	0.14	2,152	20.59%	41	1.9	
Rapids	16	457	4.1	0.07	2,201	21.05%	43	2.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	22	110	2.9	0.09	300	2.87%	17	5.7	
Dry	2	42	1.8	0.20	83	0.79%	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:	70	27.8	29.9
Pools >=1m deep:	6	2.4	2.6
Complex pools (LWD pieces>=3):	23	9.1	9.8
Pool frequency (channel widths/pool):	5.6		
Residual pool depth (avg):	0.52		

Survey Date 7/12/2005
Report Date: 4/26/2006

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 4 transects

Total hardwoods/1000	975
Total conifers/1000 ft	305
Total conifers >20" dbh/1000 ft	30
Total conifers >35" dbh/1000 ft	15

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	2.5	0.3	4.3	0.5	3.5	0.8	10.3
15-30cm	0.8	1.0	1.0	1.5	1.0	0.5	2.8	3.0
30-50cm	0.8	1.0	0.0	0.3	0.3	1.0	1.0	2.3
50-90cm	0.3	0.5	0.0	0.0	0.0	0.0	0.3	0.5
>90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
Total/100m2	1.8	5.0	1.3	6.0	2.0	5.0	1.7	5.3

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	58		73		59	
Shrub cover	13		26		20	
Grass/forb cover	74		74		76	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	38		75		75	
High terrace	25		25		25	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	38		0		0	
Riprap	0		0		0	
Surface slope (%)	23		42		36	

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

4 transects

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

Total hardwoods/1000	975
Total conifers/1000 ft	305
Total conifers >20" dbh/1000 ft	30
Total conifers >35" dbh/1000 ft	15

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	0.8	10.3
15-30cm	2.8	3.0
30-50cm	1.0	2.3
50-90cm	0.3	0.5
>90cm	0.3	0.0

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		
46	LF	1	RB	0	40	0	50	Conifer					1		3D 0428535 / 4896765
								Hardwood	2						
46	LF	2	HS	70	90	50	50	Conifer							
								Hardwood	3						
46	LF	3	HS	36	80	30	70	Conifer							
								Hardwood	2						
46	RT	1	HT	12	10	0	100	Conifer							
								Hardwood	3						
46	RT	2	HT	0	70	0	100	Conifer							
								Hardwood	4						
46	RT	3	HT	0	60	0	100	Conifer							
								Hardwood	6						
82	LF	3	HT	8	70	20	50	Conifer							
								Hardwood				1			
82	LF	2	HT	0	70	40	60	Conifer							
								Hardwood		1					
82	RT	1	HS	47	70	10	90	Conifer							
								Hardwood		2					
82	RT	2	HS	49	60	10	90	Conifer							
								Hardwood	1						
82	RT	3	HS	40	45	0	100	Conifer							1
								Hardwood	2	2					
82	LF	1	HT	27	70	0	100	Conifer							3D 0437872 / 4949860
								Hardwood				1			
104	LF	2	HS	45	80	5	95	Conifer	1	4					
								Hardwood							
104	RT	3	HS	60	70	0	100	Conifer	1	3					
								Hardwood	1						
104	RT	2	HS	60	70	5	95	Conifer							
								Hardwood				1			
104	LF	1	HS	12	80	20	80	Conifer		3	3				
								Hardwood							
104	RT	1	RB	20	70	0	70	Conifer							3D 0438114 / 4949481
								Hardwood				3			
104	LF	3	HS	45	8	20	80	Conifer	1	1	1				
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2005

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

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
3	LP	00	30.3			TROUT
5	LP	00	72.1	DJ		
11	LP	00	129.5	DJ		FISH
12	LP	00	142.4		TROUT	FISH (SMALL), ~5 IN. TROUT
13	RI	00	156.2		CT CT, D30 G, MT	
14	LP	00	161.8		TEMP 13.5C	
16	LP	01	179.8	/TJ		COHO JUVIES, SMALL TROU
17	RI	11	179.8			ACW 0.6M
19	LP	01	234.4	/TJ		
20	SC	11	234.4			ACW 0.7M
21	LP	00	256.1	BV	CRAWDADS	
22	LP	00	273.5		CRAWDADS	CRAYFISH
24	LP	00	305.8	BV		JUVENILES
30	LP	00	389.5	DJ		
32	LP	00	425.3			FISH
36	SL	00	510.8		H=0.3M	H 0.3M
37	LP	00	538.8			FISH
40	RI	00	558.8			UNDERCUT 1.3M DEEP
41	LP	01	574.6	/TJ		COTTIDS, JUVIES
42	AL	10	574.6			COHO
43	RI	11	574.6		TRIB	TRIB

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
46	RI	00	618.7		CA CT, D30 G, ST MT	
47	LP	00	631.9			FISH
50	LP	00	663.5	BV		
52	LP	01	704.8	HS, /TJ		
56	SC	00	720.9		STABILIZATION	
57	LP	00	736.2	CS		
58	RI	00	745.3			COHO
59	LP	00	757.3	DJ		
61	LP	00	784.2			COHO JUVIES
62	LP	01	797.6	/TJ BV, HS		
65	LP	00	829.2	BV		COHO
71	RI	00	936.5	/SS		
72	LP	00	953.8			JUVENILES
74	LP	00	978.9			JUVENILES
75	RB	00	1001.4		BV	
76	LP	00	1030.4			COHO
78	LP	00	1070.8	HS		
79	RP	01	1125.8	HS, TJ		
80	RI	11	1125.8			TEMP 12C
82	RI	00	1176.5		CA CT	
84	LP	00	1216.7	SS/		

Comment Summary

Restoration Monitoring Sites 2005

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

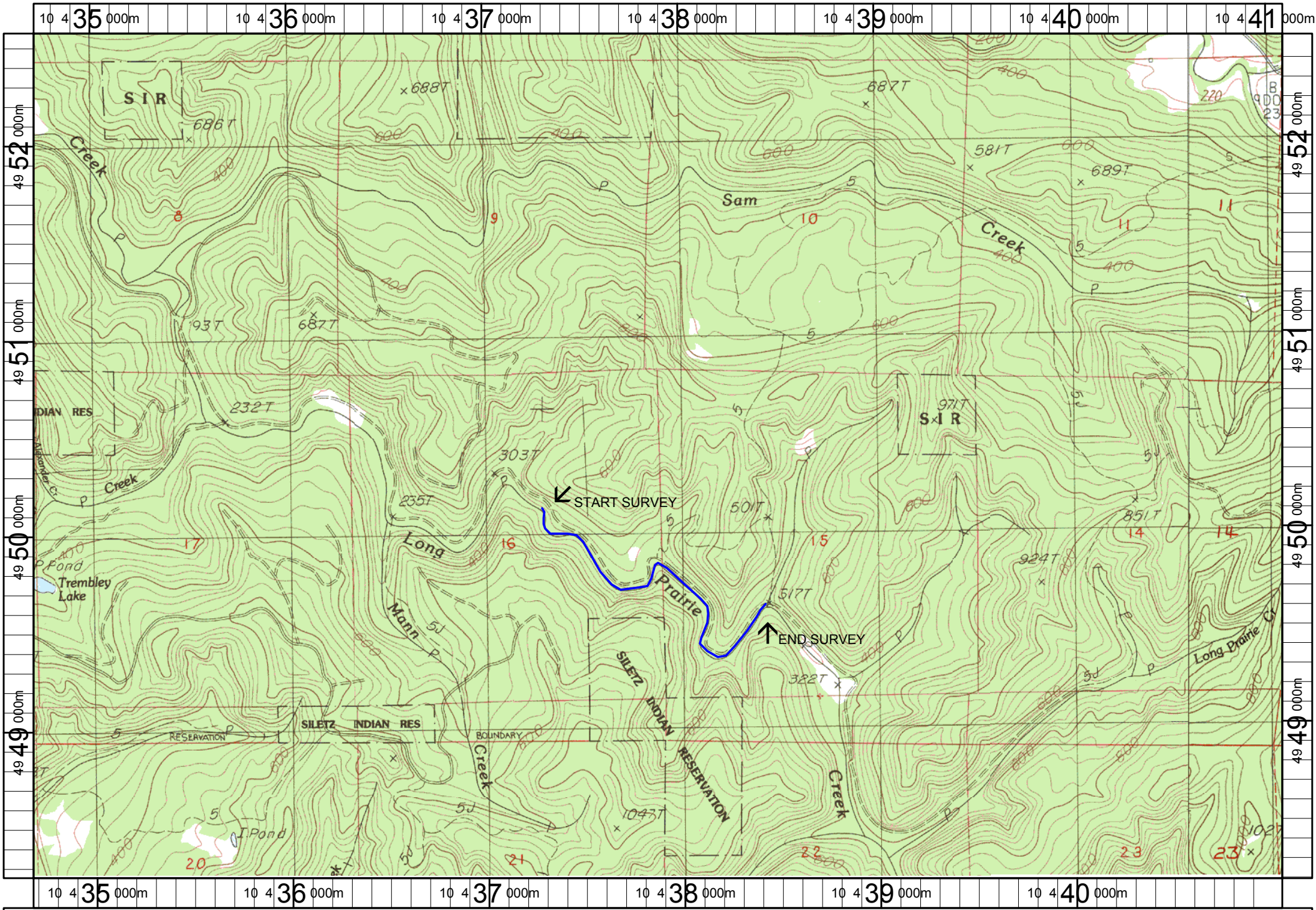
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
86	LP	00	1249.6	HS		
87	RI	01	1305.6	DJ		
88	PD	02	1305.6			FISH
90	RI	01	1379.9	/TJ		
91	RB	11	1379.9		SALAMANDER	TRIB RT
93	RP	00	1440.2	CS		ROAD BED
94	LP	00	1454.2	DJ		
95	RI	01	1486.9	BC, CS		COHO
98	RR	00	1526		NEWT	
100	RR	00	1574.5	HS		
101	LP	00	1617			COHO
104	RR	00	1691		CH MV, D30 G, ST LT	RIPARIAN 3
105	LP	00	1705.2			FISH
109	RB	01	1784.7	BC, CS, DJ		
110	LP	01	1793.4			COHO
113	LP	00	1808.6			COHO
114	LP	00	1818.8			COHO
115	RR	01	1859.8	/TJ, HS		
116	RB	11	1859.8			TRIB
117	RR	00	1909.8		FISH	
118	RR	00	1959.8	/SS		LOTS OF COHO

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
119	RR	01	1994.3	/TJ, SS HS		
120	RB	11	1994.3			TRIB
121	LP	00	2015.1			COHO
122	RR	00	2045.3	HS		FISH
123	LP	00	2063.9			FISH
128	SR	00	2142.2		H=0.45M	H 0.45M
129	RI	00	2156.5		CH MV, D30 S, ST TH	RIPARIAN 4
130	LP	00	2173			FISH
132	LP	00	2225.7	CS	FISH	BOULDERS FOR ROADBED
135	LP	00	2270.8	/SS		COHO
136	LP	00	2283.1		NEWT	
138	LP	00	2310.6	HS		
139	SC	00	2312.4		H 0.25M	H 0.25M
141	RI	01	2340	TJ/		
142	RR	11	2340		CA CT, D15 S, TH ST	TRIB



Name: EDDYVILLE
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 437880 E 4950386 N
 Caption: LONG PRAIRIE CREEK RESTORATION SITE - SILETZ BASIN