

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

STREAM: Cherry Creek (MC-15)
BASIN: Alsea River
SURVEY TYPE: Post-Tx
DATE: 6/27/2006
SURVEY CREW: Brian Bangs, Sharon Tippery
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 4.3 km²
USGS MAPS: Five Rivers
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Cherry Creek habitat survey extended 529 meters. The channel was constrained by multiple terraces within a broad valley floor. The average valley width index was 8.8 (range: 3-20). Land use for the reach was second growth timber (15-30 cm dbh) and large timber (30-50 cm dbh). The average unit gradient was 1.8 percent. Scour pools (63%) and riffles (27%) dominated stream habitat. Fines (46%), gravel (27%) and bedrock (18%) dominated stream substrate. Wood volume was low at 13.7 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.

Coho fry, cutthroat trout, rough-skinned newts, crayfish, deer, elk and beaver activity were identified by the crew within the surveyed reach.

Stream Cherry Creek (MC-15)

Basin Alsea River

Treatment Large Wood

	ODFW Benchmark		Pre 7/19/00	Post 7/16/01	Post 6/27/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	71.1	70.8	63.3		
Number of Pools			21	23	27		
Deep Pools/km (>1.0 m)			0	0	0		
% Off-Channel			1.7	.2	2.7		
LWD – Pieces/100m	>20	<10	10.1	11.7	16.1		
LWD – Volume/100m	>30	<20	7.7	10.8	13.7		
LWD – Key Pieces/100m	>3	<1	0	0.6	0		
Large Wood Jams/km			4.1	5.8	7.6		
% Riffle Fines	<10	>20	33	24	24		
% Riffle Gravel	>35	<15	39	53	51		
% Bedrock			28	16	18		

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. Over time there have been additional accumulations of wood and wood jams. There was no change in deep pools, but there seems to be a decrease in pool area since treatment. Substrate numbers have made small changes, with gravel appearing higher and bedrock lower. However, due to the nature of the surveys, small changes may only be variability between survey crews.

REACH 1

T14S-R10W-S36SE

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	8.8	VWI Range:	3 - 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	529	1,735	0
Secondary Channel	30	36	1
Off-Channel Units	13	12	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.0	Width: 5.6	7.3 (4.7 - 10.4)	10.2 (6.5 - 13.5)
Depth: 0.29	Height: 0.3	0.6 (0.6 - 0.7)	1.0 (0.8 - 1.55)

W:D ratio: 18.4
 Stream Flow Type: LF
 Average Unit Gradient: 1.8%
 Water temperature (°C): 13.5 - 13.5

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 8.9
 Habitat Units/100m (primary channel length): 9.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 82%
Undercut Banks:	5%	Range: 53 - 97

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	85	16.1
Volume (m ³):	73	13.7
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

CHERRY CREEK POST-TX (2-MC, 15)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

6/27/2006

REACH 1		T14S-R10W-S36SE					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/BEDROCK	1	5	0.4	0.01	2	0	0	0	0	0	0	100
POOL-BACKWATER	2	7	1.4	0.30	10	2	13	74	5	0	3	5
POOL-LATERAL SCOUR	22	269	3.7	0.48	1,003	19	10	49	19	3	2	16
POOL-STRAIGHT SCOUR	3	25	4.7	0.38	116	8	19	53	18	7	4	0
PUDDLED UNIT	1	30	1.2	0.01	36	0	42	32	21	5	0	0
RAPID/BEDROCK	1	12	4.5	0.05	52	0	0	5	5	0	0	90
RIFFLE	13	190	2.4	0.12	456	8	3	21	51	12	4	9
RIFFLE W/ POCKETS	1	10	2.5	0.21	24	9	0	18	35	12	24	12
STEP/BEDROCK	2	15	4.4	0.09	64	0	3	8	3	0	0	88
STEP/COBBLE	1	3	3.7	0.05	11	0	5	63	21	11	0	0
STEP/LOG	1	1	0.8	0.12	1	0	0	55	45	0	0	0
STEP/STRUCTURE	3	5	1.2	0.06	8	5	2	35	36	14	0	14
Total:	51	571	3.0	0.29	1,782	51	Avg: 8	38	27	6	3	18

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	2	7	1.4	0.30	10	0.55%	2	20.3	
Scour Pools	25	294	3.8	0.47	1,119	62.78%	27	2.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	200	2.4	0.13	480	26.95%	17	3.5	
Rapids	1	12	4.5	0.05	52	2.90%	0	0.0	
Cascades	1	5	0.4	0.01	2	0.12%	0	0.0	
Step/Falls	7	24	2.4	0.07	84	4.70%	5	6.0	
Dry	1	30	1.2	0.01	36	1.99%	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:	27	47.3	51.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	10.5	11.3
Pool frequency (channel widths/pool):	3.7		
Residual pool depth (avg):	0.37		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

CHERRY CREEK POST-TX
GCG: 2-MC SITE ID: 15

Survey Date 6/27/2006
Report Date: 3/5/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	1097
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	203
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	1.0	0.0	2.0	0.0	5.7	0.0	8.7
15-30cm	0.0	2.3	0.0	2.7	0.0	2.0	0.0	7.0
30-50cm	0.0	0.7	0.3	0.7	0.3	0.3	0.7	1.7
50-90cm	1.0	0.0	1.3	0.7	1.0	0.0	3.3	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	4.0	1.7	6.0	1.3	8.0	1.3	6.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	48		58		55	
Shrub cover	61		42		23	
Grass/forb cover	37		50		60	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		67		67	
High terrace	67		33		17	
Low terrace	17		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	17		43		11	

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	1097
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	203
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	8.7
15-30cm	0.0	7.0
30-50cm	0.7	1.7
50-90cm	3.3	0.7
>90cm	0.0	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		
17	RT	2	HS	75	40	95	5	Conifer							
								Hardwood	4	4					
17	RT	1	HT	18	10	90	10	Conifer							
								Hardwood	3	7					
17	RT	3	HS	10	5	30	60	Conifer							
								Hardwood							
17	LF	2	HT	0	0	40	60	Conifer							
								Hardwood							
17	LF	1	HT	0	10	30	70	Conifer							
								Hardwood							
17	LF	3	HS	15	35	35	70	Conifer							
								Hardwood	6	2					
32	LF	2	HT	11	85	30	60	Conifer							
								Hardwood		1					
32	LF	3	HT	0	90	10	80	Conifer				1	3		
								Hardwood	1	1					
32	RT	1	LT	0	70	60	30	Conifer							
								Hardwood							
32	RT	2	HS	120	85	20	60	Conifer						1	
								Hardwood						2	
32	RT	3	RB	0	70	10	15	Conifer							
								Hardwood							
32	LF	1	HT	34	65	75	20	Conifer						2	
								Hardwood			2				
44	LF	2	HS	24	65	40	45	Conifer							
								Hardwood		3	2				
44	RT	3	HS	15	70	10	85	Conifer							
								Hardwood	3	2	1				
44	RT	2	HS	30	70	25	70	Conifer				1	3		
								Hardwood	2						
44	LF	3	HS	28	60	40	50	Conifer							
								Hardwood	7	1					
44	LF	1	HT	24	55	60	40	Conifer						1	
								Hardwood							
44	RT	1	HS	27	80	50	50	Conifer							
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **15** **CHERRY CREEK POST-TX**

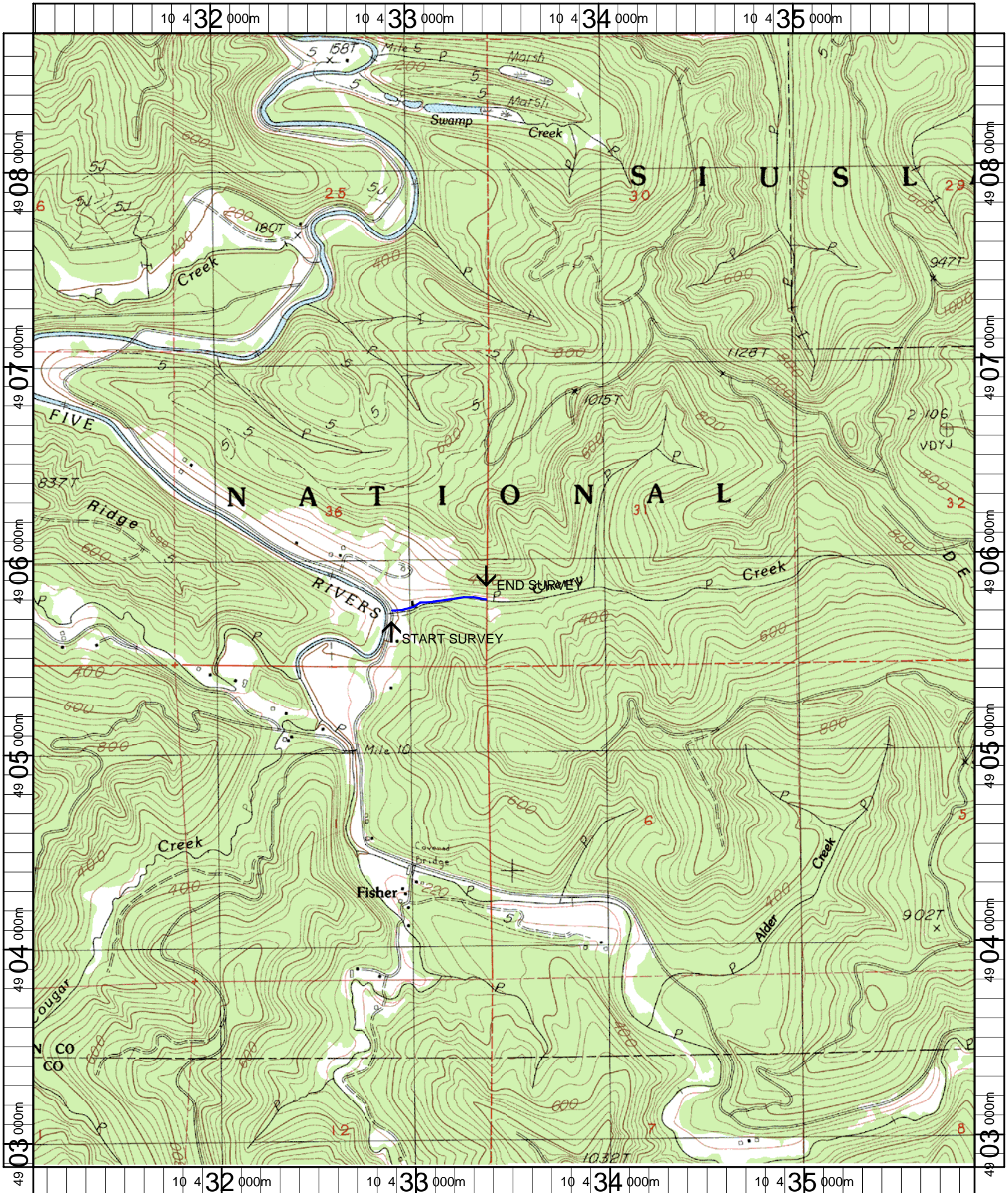
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	8.1		VWI=20+; T=13.5C	
2	SP	00	14.5	BV, HS	CF, JUV FISH; HS = BOULDE	CRAYFISH
3	SC	00	17.5		HS= SLOTTED LOGS	
4	SP	00	27.6	BV	CO, BV, RSN	COHO
6	BW	10	52.2		CO	
7	LP	00	63.9	BV	TF, CO	TROUT, COHO
9	LP	00	92.4		PGS, CO, CF	TROUT, COHO, PGS
10	SS	00	92.8	HS	H=0.25m	BOULDER DAM WITH WO
12	SP	00	105.8			COHO, TROUT
13	SS	00	106.3	HS	H= 0.5m	SLOTTED WOOD
14	LP	00	110.3			COHO
15	RI	00	117		COHO	
16	LP	00	143.8			COHO
18	LP	00	171.4		COHO	COHO
19	LP	00	181			COHO
21	RP	00	197.4		CRAWDAD, 4 INCH TROUT	
22	LP	00	208.9			TROUT, COHO
23	SL	00	210.1		H = 0.25	LOG
24	LP	00	217.3			TROUT, COHO, CRAYFISH
26	LP	00	243		COHO	COHO
28	LP	00	271.5		COHO	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **15** **CHERRY CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
29	LP	00	284.8		RSN, COHO	
31	BW	10	305.6			COHO
32	LP	01	328.3		RSN, COHO, JUV TROUT	
33	PD	02	328.3	/SS		
34	RI	00	343.9	WL		ELK TRAIL
35	LP	00	363.3	HS		COHO, LOGS
39	LP	00	392.9		COHO	
40	LP	00	403.7	WL	CRAWDAD	WL TRAIL, CRAYFISH, CO
42	LP	00	428.2	HS	COHO	LOGS, ORANGE FLAGGIN
43	SS	00	432.6	HS	HS - PLACED LOGS	LOGS
44	RI	00	457.8	BV	BV	
45	LP	00	465.1		RSN, CRAWDAD	COHO
46	LP	00	482.4		COHO	COHO
47	LP	00	497.1	BV		COHO
48	LP	00	505.4	BV	COHO	COHO
49	RR	00	516.9	WL		DEER TRACK
50	LP	01	528.8	/TJ		T = 14.0
51	CR	11	528.8		ACW = 1.6, T = 15.0	



Name: FIVE RIVERS
 Date: 1/25/2007
 Scale: 1 inch equals 2000 feet

Location: 10 433482 E 4905775 N
 Caption: CHERRY CREEK RESTORATION SITE - ALSEA BASIN