

**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: February 21, 2006  
SURVEY CREW: Paul Jacobsen, Brian Bangs  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 4.3 km<sup>2</sup>  
USGS MAPS: Five Rivers  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Cherry Creek habitat survey extended 520 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.5 (range: 3.0-15.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.7 percent. Scour pools (54%) and riffles (29%) dominated stream habitat. Bedrock (33%) and gravel (32%) dominated stream substrate. Wood volume was low at 14.3 m<sup>3</sup>/100m.

**COMMENTS:**

There were no potential barriers to upstream fish migration in the surveyed length.

The crew noted several habitat structures during the survey and beaver activity throughout the survey.

Stream           Cherry Creek (MC-15)  
 Basin             Alsea River  
 Treatment        Large Wood

	ODFW Benchmark		Pre 1/25/00	Post 2/1/01	Post 2/21/06		
<b>Habitat Variable</b>	<b>Desirable</b>	<b>Undesirable</b>					
% Pool Area	>35%	<10%	59.3	<b>67.8</b>	<b>54.8</b>		
Number of Pools			23	21	22		
Deep Pools/km (>1.0 m)			9	<b>0</b>	<b>0</b>		
% Off-Channel			5.7	<b>1.4</b>	<b>1.0</b>		
LWD – Pieces/100m	>20	<10	15.4	<b>10.8</b>	17.3		
LWD – Volume/100m	>30	<20	18.5	18	<b>14.3</b>		
LWD – Key Pieces/100m	>3	<1	0.7	0.2	0.6		
Large Wood Jams/km			5.4	7.2	7.7		
% Riffle Fines	<10	>20	13	21	17		
% Riffle Gravel	>35	<15	69	58	55		
% Bedrock			22	29	25		

**Bold** is noticeable change

Comments: Since the treatment was large wood assembled in complex jams, it would be expected that there would be greater amounts of wood after treatment. However, there has been only a small increase in wood pieces, a decrease in wood volume, relatively stable key wood pieces, and a small increase in wood jams. A contributing factor is that this reach has a small tree and shrub-dominated riparian, which will not contribute much wood to the stream. Deep pools dropped dramatically, although that may be a symptom of stream levels at the time of the surveys. Since the reach was pool-rich and had plenty of riffle gravel prior to treatment, it is unlikely that there will be significant increases in those characteristics. Pool area seems to have decreased over time, although the number of pools remained static.

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	6.5	VWI Range:	3 - 15

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 Channel	520	1,960	0
Secondary Channel	0	0	0
Off-Channel Units	15	19	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.7	Width: 7.7	12.5 ( 10.4 - 14.5 )	17.0 ( 15.3 - 21 )
Depth: 0.38	Height: 0.5	1.1 ( 0.9 - 1.2 )	1.8 ( 1.4 - 2.3 )

W:D ratio: 14.3  
 Stream Flow Type: LF  
 Average Unit Gradient: 1.7%  
 Water temperature (°C): 5.5 - 5.5

Entrenchment (ACW:FPW ratio): 1.6  
 Habitat Units/100m (total channel length): 8.2  
 Habitat Units/100m (primary channel length): 8.5

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D3	S

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):	90	17.3
Volume (m <sup>3</sup> ):	75	14.3
Key pieces (>=12m x 0.60m):	3	0.6

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

2/21/2006

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 <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	1	5	0.4	0.20	2	0	0	0	0	0	0	100
GLIDE	1	16	3.2	0.30	50	0	5	10	40	10	15	20
POOL-BACKWATER	2	10	1.8	0.43	17	0	15	25	18	0	0	43
POOL-LATERAL SCOUR	16	216	3.8	0.57	849	0	4	22	25	9	6	35
POOL-PLUNGE	4	41	5.2	0.69	218	0	3	20	22	4	10	41
RAPID/BEDROCK	3	33	4.4	0.13	135	0	0	11	2	2	1	84
RAPID/BOULDERS	1	15	3.1	0.30	48	0	1	20	15	5	40	20
RIFFLE	10	178	3.2	0.20	576	0	3	14	55	11	2	15
STEP/BEDROCK	1	5	5.5	0.15	29	0	0	20	0	0	0	80
STEP/COBBLE	3	14	4.0	0.13	53	0	1	10	69	13	2	5
STEP/LOG	2	1	3.4	0.15	4	0	0	25	40	20	15	0
<b>Total:</b>	<b>44</b>	<b>535</b>	<b>3.7</b>	<b>0.38</b>	<b>1,979</b>	<b>0</b>	<b>Avg: 3</b>	<b>18</b>	<b>32</b>	<b>8</b>	<b>6</b>	<b>33</b>

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	2	10	1.8	0.43	17	0.85%	0	0.0	
Scour Pools	20	258	4.1	0.60	1,067	53.91%	0	0.0	
Glides	1	16	3.2	0.30	50	2.52%	0	0.0	
Riffles	10	178	3.2	0.20	576	29.09%	0	0.0	
Rapids	4	49	4.1	0.18	183	9.24%	0	0.0	
Cascades	1	5	0.4	0.20	2	0.10%	0	0.0	
Step/Falls	6	20	4.0	0.14	85	4.28%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	22	41.1	42.3
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	11.2	11.5
Pool frequency (channel widths/pool):	3.2		
Residual pool depth (avg):	0.41		

# 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	SC	00	6.6		T = 5.5	
3	SC	00	16.3	HS, BV		
4	LP	00	26.6	BV,SS/,CE/		
5	LP	00	34.2	BV		
6	RI	01	48.4	BV		
7	BW	10	48.4	BV		
8	LP	00	62.5	BV		
10	PP	00	90.7	BV		
11	SL	00	91.25	HS	LOGS, BOULDERS, H =-0.4	
12	PP	00	104.45	BV, HS	5 BLDRS, FRESH AND NEW BV CUTS	
13	SL	00	104.95	BV, HS	SILL LOG	
14	RI	00	113.85	BV		
15	LP	00	142.15	BV		
16	SC	00	146.15	BV		
17	LP	00	164.65	BV		
18	GL	00	180.25	BV		
19	RB	00	195.65	BV		
20	LP	00	206.45	BV		
21	RI	00	231.45	BV		
22	RI	00	255.75	BV		
23	LP	00	267.75	BV		

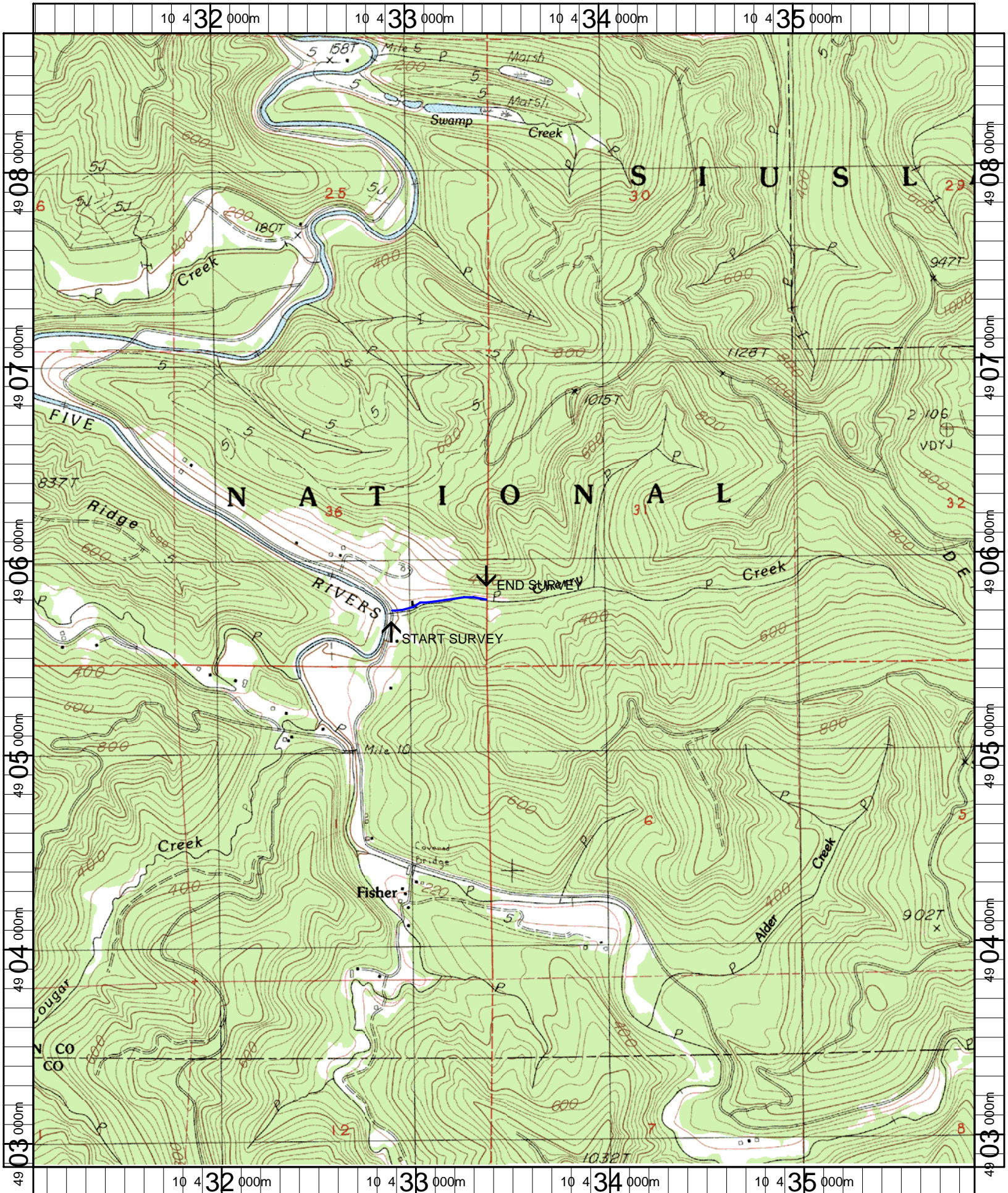
# Comment Summary

## 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
25	RI	00	297.85	BV		
26	LP	00	320.95	BV		
27	RI	01	335.25		SALMONID CARCASS	
29	LP	00	356.45	HS, SS/	NEWER LOGS	
30	RR	00	363.75	BV		
31	LP	00	371.85		SMOLT	
34	RI	00	413.25	RF, BV		
35	LP	00	419.65	BV	CARCASS	
36	SR	00	424.85	HS, DJ, BV		
38	LP	00	448.05	BV	2 COHO CARCASSES	
39	RI	00	474.55	BV		
41	LP	00	496.75	BV		
42	RR	00	508.25	BV		
43	PP	01	520.25	/TJ		
44	CR	11	520.25		T = 6.0	





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