

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

STREAM: Buck Creek (MC-218)  
BASIN: Alsea River  
SURVEY TYPE: Post-Tx  
DATE: August 11, 2004  
SURVEY CREW: LaNoah Babcock, Jeff Snyder  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 31.9 km<sup>2</sup>  
USGS MAPS: Cannibal Mountain  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Buck Creek habitat survey extended 550 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.5 (range: 5.0-7.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.6 percent. Riffles (49%) and scour pools (45%) dominated stream habitat. Cobble (39%), gravel (26%) and bedrock (23%) dominated stream substrate. Wood volume was high at 45.2 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.

REACH 1

T15S-R10W-S15SW

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	5.5	VWI Range:	5 - 7

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	550	2,772	0
Secondary	102	282	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 4.3	Width: 8.8	11.6 ( 9 - 15.1 )	14.9 ( 10 - 16.7 )
Depth: 0.35	Height: 0.4	0.8 ( 0.6 - 0.9 )	1.6 ( 1.3 - 1.9 )

W:D ratio: 23.2  
Stream Flow Type: LF  
Average Unit Gradient: 1.6%  
Water temperature (°C): 16.0 - 16.0

Entrenchment (ACW:FPW ratio): 1.3  
Habitat Units/100m (total channel length): 6.0  
Habitat Units/100m (primary channel length): 7.1

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:		Reach avg: 66%
Undercut Banks:	10%	Range: 33 - 86

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	68	12.4
Volume (m <sup>3</sup> ):	248	45.2
Key pieces (>=12m x 0.60m):	15	2.7

OREGON DEPARTMENT OF FISH AND WILDLIFE

BUCK CREEK POST-TX (MC-218)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

8/11/2004

REACH 1		T15S-R10W-S15SW					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	
POOL-LATERAL SCOUR	12	199	5.1	0.57	1,091	26	3	9	23	31	2	32	
POOL-PLUNGE	1	9	7.4	0.50	63	0	0	10	30	60	0	0	
POOL-STRAIGHT SCOUR	1	32	6.5	0.20	206	0	0	0	10	50	0	40	
RAPID/BEDROCK	2	16	2.4	0.20	47	0	0	0	10	25	0	65	
RAPID/BOULDERS	1	23	3.2	0.30	75	0	0	0	10	40	40	10	
RIFFLE	15	282	4.1	0.27	1,187	63	0	11	35	47	2	4	
RIFFLE W/ POCKETS	3	61	4.9	0.30	311	10	0	3	33	33	3	27	
STEP/BEDROCK	2	20	1.3	0.08	29	0	0	0	0	0	0	100	
STEP/COBBLE	2	12	3.8	0.13	45	0	0	0	20	80	0	0	
<b>Total:</b>	<b>39</b>	<b>652</b>	<b>4.3</b>	<b>0.35</b>	<b>3,054</b>	<b>99</b>	<b>Avg: 1</b>	<b>8</b>	<b>26</b>	<b>39</b>	<b>3</b>	<b>23</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	0	0			0	0.00%	0	0.0
Scour Pools	14	239	5.3	0.54	1,360	44.55%	26	1.9
Glides	0	0			0	0.00%	0	0.0
Riffles	18	342	4.2	0.27	1,498	49.05%	73	4.9
Rapids	3	39	2.7	0.23	121	3.97%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	4	31	2.6	0.10	74	2.43%	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:	14	21.5	25.5
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	3.1	3.6
Pool frequency (channel widths/pool):	5.3		
Residual pool depth (avg):	0.45		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1	REACH 1
<b>Summary of Riparian Zone (0-30m) 3 transects</b>	
Total hardwoods/1000	691
Total conifers/1000 ft	122
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	0.3	0.0	0.0	1.0	0.0	1.0	0.3	2.0
15-30cm	1.0	2.0	0.0	1.7	0.0	1.0	1.0	4.7
30-50cm	0.7	3.3	0.0	0.0	0.0	1.0	0.7	4.3
50-90cm	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.0	5.3	0.0	3.0	0.0	3.0	0.7	3.8

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	65		50		60	
Shrub cover	45		38		40	
Grass/forb cover	23		37		32	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		50		50	
High terrace	67		50		50	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	15		12		17	

**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	
13	LF	1	HT	28	70	60	20	Conifer		1	1			
								Hardwood			1			
13	RT	1	HT	6	60	40	20	Conifer	1	2	1			
								Hardwood						
13	RT	2	HT	7	20	10	80	Conifer						MEADOW
								Hardwood						
13	RT	3	HT	9	20	10	80	Conifer						MEADOW
								Hardwood						
13	LF	2	HS	23	30	60	40	Conifer						CLEARCUT
								Hardwood						
13	LF	3	HS	28	30	70	40	Conifer						CLEARCUT
								Hardwood						
21	LF	1	HT	7	50	60	30	Conifer						
								Hardwood		2	1			
21	LF	2	HT	7	40	50	30	Conifer						
								Hardwood				1		
21	LF	3	HT	7	60	70	30	Conifer						
								Hardwood		1	2			
21	RT	1	HS	24	70	30	20	Conifer						
								Hardwood			3			
21	RT	2	HS	6	60	40	40	Conifer						
								Hardwood	3	1				
21	RT	3	HS	29	90	30	10	Conifer						
								Hardwood	2	1				
28	RT	2	HS	24	70	40	10	Conifer						
								Hardwood		4				
28	LF	3	HT	7	70	30	20	Conifer						
								Hardwood						
28	RT	3	HS	24	90	30	10	Conifer						
								Hardwood	1	1	1			
28	LF	2	HT	7	80	30	20	Conifer						YOUNG SAPLINGS
								Hardwood						
28	LF	1	HT	6	60	50	40	Conifer						
								Hardwood		4	3			
28	RT	1	HS	19	80	30	10	Conifer						
								Hardwood			2			

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC**      SITE ID: **218**      **BUCK CREEK POST-TX (MC-218)**

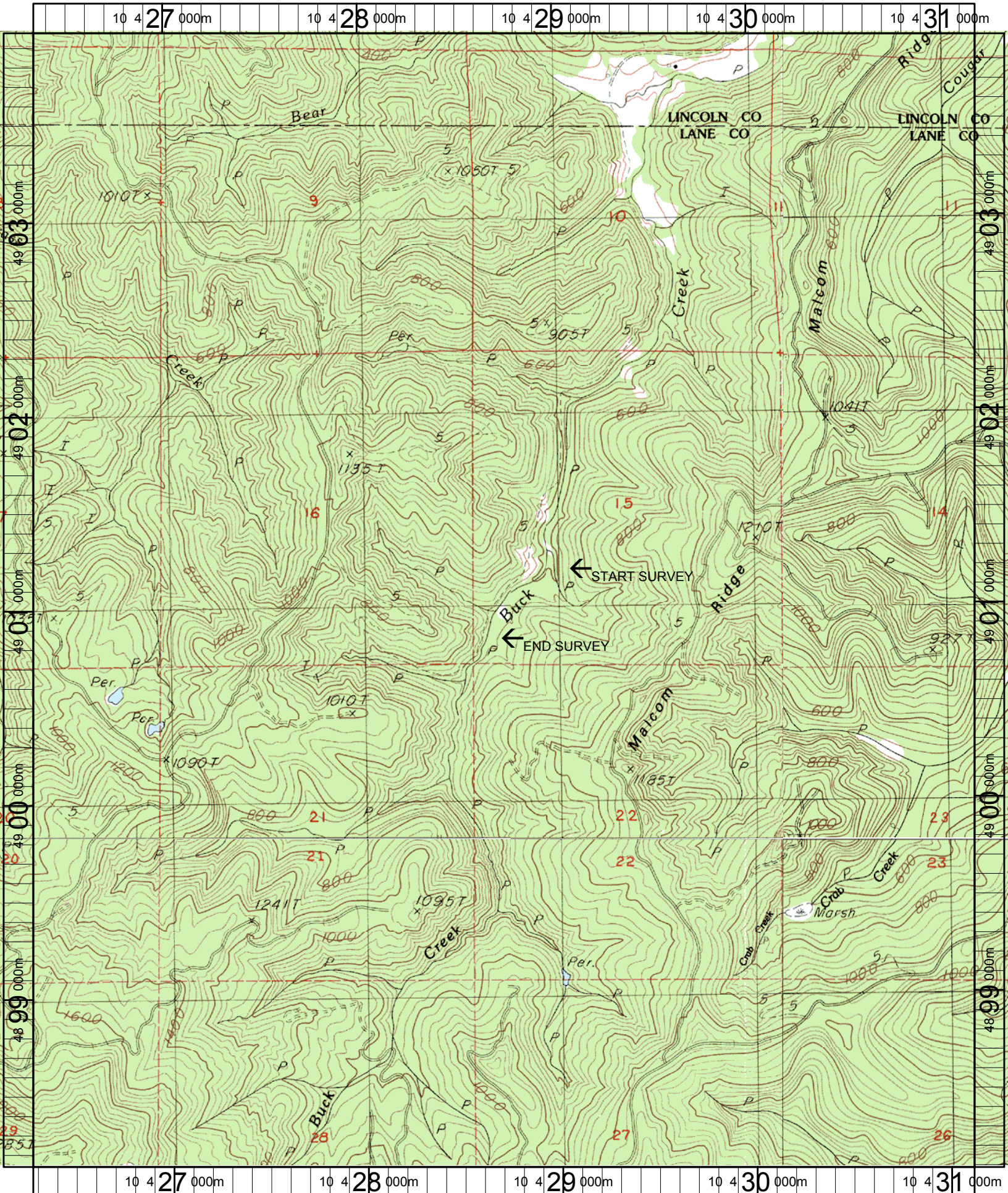
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	01	9.2		T=16 AT 3:20, SIGN ALDE	T = 16, COHO
2	RI	01	34.2	DJ, HS		
3	RI	01	59.2		HS	
5	SP	01	101.9			COHO
7	LP	02	101.9			COHO
9	RI	02	101.9			COHO
10	RI	02	101.9			COHO
11	RI	02	101.9			COHO
12	RI	00	114.3	HS	HS	
13	LP	00	136.6		RIPARIAN 1	COHO
15	LP	00	168.1			COHO
17	PP	00	183.1			COHO
18	SR	00	183.7		H = 0.4	H = 0.4
19	LP	00	197.8	HS	HS	COHO
21	RI	00	248.3		RIPARIAN 2	
22	RI	00	264.3	HS		
23	LP	00	278.9			COHO
25	RP	00	315.8			RIFFLES AND POCKETS
26	LP	00	330			COHO
28	LP	00	386.4			COHO
29	RP	00	418.5	RF		

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: 2-MC      SITE ID: 218      BUCK CREEK POST-TX (MC-218)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
30	LP	00	438.5			COHO
31	RI	01	471.9	HS, /TJ	HS, /TJ	
32	SR	11	471.9		STEEP	T =14
33	LP	00	496.6		RSN	COHO
35	LP	00	516.8			RSN, COHO
37	RR	00	532.9	BV		
38	LP	00	542		BV	COHO
39	RI	00	549.9		END SIGN ALDER RIGHT	END SURVEY



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

Location: 10 428722 E 4901037 N  
 Caption: BUCK CREEK RESTORATION SITE - ALSEA BASIN