

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

STREAM: Buck Creek (MC-74)
BASIN: Alsea River
SURVEY TYPE: Reference
DATE: June 30, 2003
SURVEY CREW: Carmen Vandyke, Brock Jonasson
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 31.9 km²
USGS MAPS: Cannibal Mtn.
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Buck Creek habitat survey extended 546 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.4 (range: 1.5-6.0). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 1.9 percent. Scour pools (57%) dominated stream habitat. Cobble (30%) and bedrock (28%) dominated stream substrate. Wood volume was low at 14.4 m³/100m.

COMMENTS:

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

REACH 1

T15S-R10W-S15NW

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	3.4	VWI Range:	1.5 - 6

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	546	2,845	0
Secondary	77	113	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	4.4	Width	8.2	10.7	11.8
Depth	0.37	Height	0.6	1.1	2.1
		W:D ratio	15.1	Entrenchment	1.4

Stream Flow Type: Water temp (C): 14.0 - 14.0
 Avg. Unit Gradient: 1.9% Habitat Units/100m: 5.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	M15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 95%
Undercut Banks:	5%	Range: 83 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	69	12.6
Volume (m ³):	79	14.4
Key pieces (>=10m x 0.60m):	4	0.7

OREGON DEPARTMENT OF FISH AND WILDLIFE

BUCK CREEK REFERENCE (MC-74)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

6/30/03

REACH 1		T15S-R10W-S15NW					REACH 1							
Habitat Type	Number	Total	HABITAT DETAIL				Substrate							
			Units	Avg Length	Avg Width	Avg Depth	Avg Area	Avg Large	Percent Wetted Area					
				(m)	(m)	(m)	(m ²)	(#>0.5m)	S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	2	29	6.2	0.25	181	7	0	5	5	8	8	75		
POOL-BACKWATER	1	9	1.8	0.20	16	3	0	70	10	10	10	0		
POOL-LATERAL SCOUR	9	156	4.3	0.62	707	28	3	11	11	38	21	16		
POOL-PLUNGE	1	7	4.3	0.50	31	2	0	0	5	5	5	85		
POOL-STRAIGHT SCOUR	5	149	5.9	0.74	935	12	23	10	7	24	12	24		
POOL-TRENCH	1	7	1.8	0.50	12	0	0	0	5	0	0	95		
RAPID/BEDROCK	5	70	3.8	0.10	265	14	0	1	8	19	10	63		
RAPID/BOULDERS	4	54	4.0	0.13	216	11	0	1	11	48	36	4		
RIFFLE	7	143	4.3	0.13	595	22	9	6	15	37	24	10		
Total:	35	623	4.4	0.37	2,958	99	Avg 6	8	10	30	18	28		

HABITAT SUMMARY										77
Habitat Group	Number	Total	Avg	Avg	Wetted Area		Large Boulders			
					Units	Length	Width	Depth		
Dammed & BW Pools	1	9	1.8	0.20	16	0.55%	3	18.5		
Scour Pools	16	319	4.7	0.64	1,685	56.94%	42	2.5		
Glides	0	0			0	0.00%	0	0.0		
Riffles	7	143	4.3	0.13	595	20.11%	22	3.7		
Rapids	9	124	3.9	0.11	481	16.27%	25	5.2		
Cascades	2	29	6.2	0.25	181	6.13%	7	3.9		
Step/Falls	0	0			0	0.00%	0	0.0		
Dry	0	0			0	0.00%	0	0.0		
Culverts	0	0			0	0.00%	0	0.0		

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	17	27.3
Pools >=1m deep:	2	3.2
Complex pools (LWD pieces>=3):	6	9.6
Pool frequency (channel widths/pool):	4.5	
Residual pool depth (avg):	0.54	

STREAM SUMMARY

BUCK CREEK REFERENCE (MC-74)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Large Boulders (#>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
35	623	4.4	0.37	2,958	6	8	10	30	18	28	99

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	16	0.55%
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Step/Falls	0	0.00%
Dry	0	0.00%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	610
Total conifers/1000 ft	589
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	20

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	1.7	0.0	0.7	2.3	1.0	2.3	3.3
15-30cm	0.3	0.7	1.3	2.0	1.3	1.3	3.0	4.0
30-50cm	0.7	1.7	0.7	0.7	1.7	0.0	3.0	2.3
50-90cm	0.0	0.3	0.0	0.0	1.0	0.0	1.0	0.3
>90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
Total/100m2	1.0	4.3	2.3	3.3	6.3	2.3	3.2	3.3

Canopy closure and ground cover

	Zone 1 0-10 meters	Zone 2 10 - 20 meters	Zone 3 20 - 30 meters
	(%)	(%)	(%)
Canopy closure	79	84	56
Shrub cover	37	56	64
Grass/forb cover	62	44	36

Predominant landform in each zone

	Zone 1 0-10 meters	Zone 2 10 - 20 meters	Zone 3 20 - 30 meters
	(%)	(%)	(%)
Hillslope	50	83	83
High terrace	17	17	17
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	33	0	0
Riprap	0	0	0
Surface slope (%)	37	50	38

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	610
Total conifers/1000 ft	589
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	20

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	2.3	3.3
15-30cm	3.0	4.0
30-50cm	3.0	2.3
50-90cm	1.0	0.3
>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	
8	LF	3	HS	40	60	5	95	Conifer	1	4	2	1		EDGE OF SECOND GROWTH
								Hardwood						
8	RT	3	HS	65	60	60	40	Conifer			3	2		
								Hardwood						
8	RT	1	RB	0	75	5	90	Conifer		1	2			
								Hardwood						
8	RT	2	HS	70	70	50	50	Conifer						
								Hardwood	2					
8	LF	1	HS	95	90	10	90	Conifer						
								Hardwood			3			
8	LF	2	HS	70	95	10	90	Conifer		3	2			
								Hardwood						
18	RT	3	HS	65	50	90	10	Conifer						
								Hardwood	3					
18	RT	1	RB	0	40	5	95	Conifer						
								Hardwood	3					
18	LF	2	HS	40	85	60	40	Conifer						
								Hardwood		1	1			
18	LF	3	HS	30	40	95	5	Conifer	3					
								Hardwood						
18	LF	1	HS	30	90	70	25	Conifer						
								Hardwood				1		
18	RT	2	HS	60	70	80	20	Conifer						
								Hardwood		3				
23	LF	1	HS	95	85	70	30	Conifer						
								Hardwood	2					
23	LF	2	HS	60	90	70	30	Conifer		1			1	
								Hardwood						
23	LF	3	HS	30	30	75	25	Conifer	3					
								Hardwood						
23	RT	1	HT	1	95	60	40	Conifer						
								Hardwood		2	2			
23	RT	3	HT	0	95	60	40	Conifer						
								Hardwood	4					
23	RT	2	HT	0	95	65	35	Conifer						
								Hardwood	2	1				

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: **2-MC** SITE ID: **74** **BUCK CREEK REFERENCE (MC-74)**

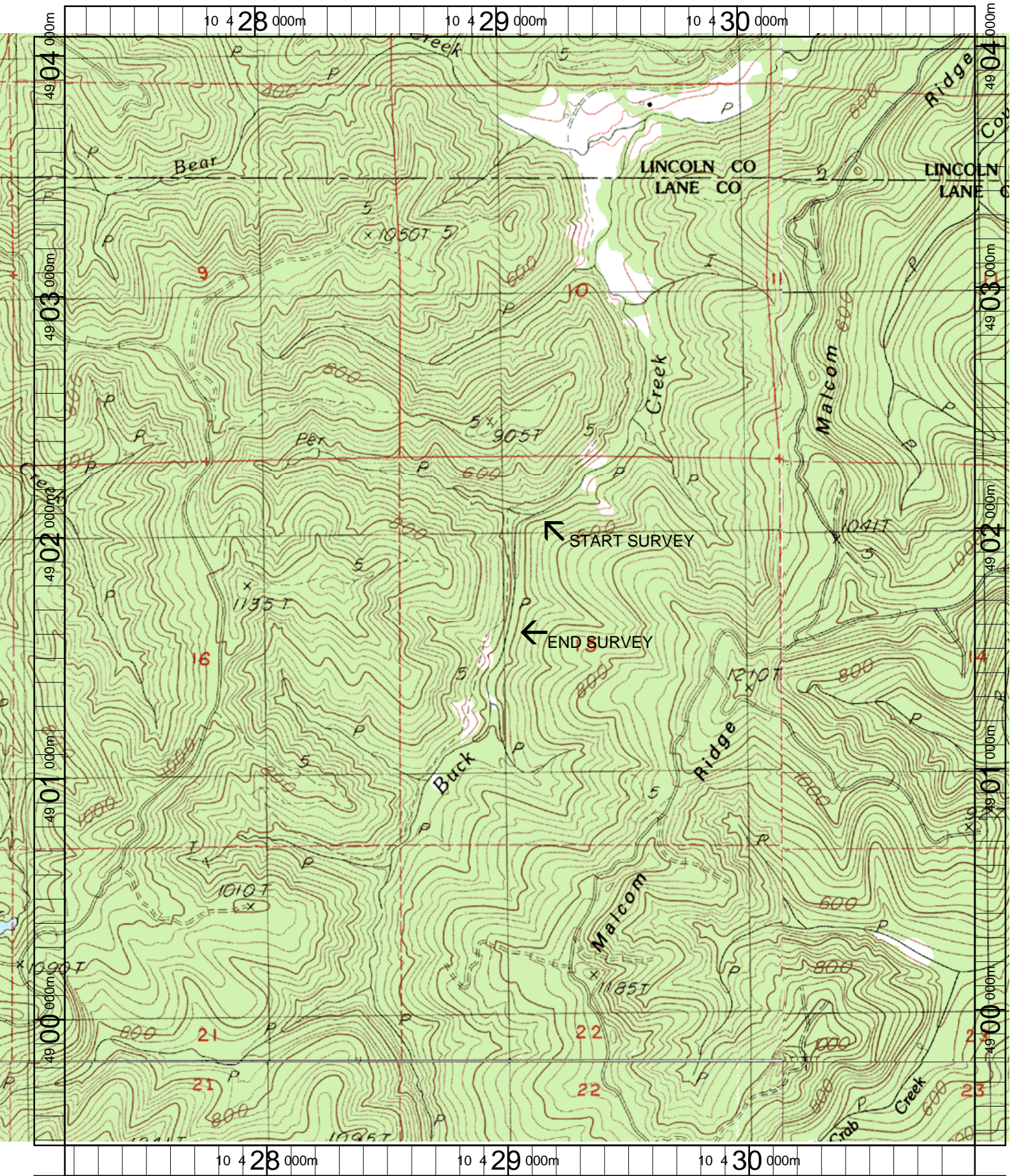
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RI	01	21.7	WL, /TJ	/TJ START	ELK BUGLE START
3	LP	00	50.3	WL	LARGE POOL TO SIDE	FISH
4	RR	00	64.9	/SS		8 X 3M POOL TO THE SIDE
5	LP	00	75.3	DJ		
6	RI	00	91.9	DJ		
7	LP	00	110.3	WL		FISH, ELK
8	RI	00	130.9			.4M POCKET
10	BW	10	148.3	WL		I SMELL ELK
11	LP	00	167.5		4M TAILOUT	
13	RR	01	206.2		TJ/	
14	RB	11	206.2	WL		FISH
15	LP	00	221.3	WL		FISH
19	SP	00	300.6	WL		FISH
21	SP	00	349.9	WL		FISH, ELK TRAIL
22	CR	00	365.4			.7M POCKET
23	PP	00	372.7	/SS	CORNER MAKES IT UNUS	
24	TP	00	379.2		.2M STEP	
28	LP	01	439.4	TJ/	TJ/	
30	RB	01	459.1	/TJ		
31	LP	11	459.1	WL	FISH & RSN	NEWT
32	SP	11	459.1	WL	2M RI @ TAILOUT	NEWT, FISH

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 2-MC SITE ID: 74 BUCK CREEK REFERENCE (MC-74)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
33	SP	00	500.3	WL		FISH
35	LP	00	546	WL	END	FISH, END



Name: CANNIBAL MT
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 429069 E 4901762 N
 Caption: BUCK CREEK RESTORATION SITE - ALSEA BASIN