

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

STREAM: Buck Creek (L-73)
BASIN: Clatskanie River
SURVEY TYPE: Post-Tx
DATE: August 6, 2002
SURVEY CREW: John Baldwin, Paul Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 5.7 km²
USGS MAPS: Delena
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Buck Creek habitat survey extended 483 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 2.5 (range: 1.2 – 3.3). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 3.1 percent. Riffles (43%) and slackwater pools (26%) dominated stream habitat. Gravel (36%), cobble (23%) and fines (21%) dominated stream substrate. Wood volume was low at 20.5 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. Beaver activity was also recorded.

REACH 1

T6N-R3W-S15SE

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	2.5	VWI Range:	1.2 - 3.3

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	483	1,152	0
Secondary	33	43	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	1.8	Width	8.5	13.2	11.6
Depth	0.19	Height	0.5	1.0	1.4
		W:D ratio	16.5	Entrenchment	2.0
Stream Flow Type:	LF	Water temp (C):		11.0 - 11.0	
Avg. Unit Gradient:	3.1%	Habitat Units/100m:		9.5	

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 79%
Undercut Banks:	30%	Range: 44 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	63	13.1
Volume (m ³):	99	20.5
Key pieces (>=10m x 0.60m):	7	1.5

OREGON DEPARTMENT OF FISH AND WILDLIFE

BUCK CREEK POST-TX (L-73)

HABITAT INVENTORY

Report Date: 3/17/03

Survey Date:

8/6/02

REACH 1		T6N-R3W-S15SE					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-BACKWATER	1	1	1.6	0.10	2	0	80	15	5	0	0	0	
POOL-BEAVER DAM	2	38	7.2	0.63	307	0	73	10	5	13	0	0	
POOL-ISOLATED	1	1	0.8	0.10	1	0	5	25	70	0	0	0	
POOL-LATERAL SCOUR	17	99	1.5	0.32	159	33	34	6	28	21	10	0	
POOL-PLUNGE	1	2	2.1	0.55	4	0	5	5	45	45	0	0	
RAPID/BEDROCK	1	29	1.8	0.01	51	0	0	0	0	5	0	95	
RAPID/BOULDERS	5	126	1.2	0.08	147	82	4	11	36	20	29	0	
RIFFLE	14	216	1.9	0.07	517	36	6	11	48	30	4	1	
STEP/BEAVER DAM	1	2	3.1	0.01	6	0	50	40	5	5	0	0	
STEP/COBBLE	3	3	0.7	0.01	2	2	3	5	63	27	2	0	
Total:	46	516	1.8	0.19	1,195	153	Avg 21	10	36	23	8	3	

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	4	40	4.2	0.36	309	25.87%	0	0.0	
Scour Pools	18	101	1.6	0.33	163	13.62%	33	20.3	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	216	1.9	0.07	517	43.22%	36	7.0	
Rapids	6	154	1.3	0.07	198	16.59%	82	41.3	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	4	5	1.3	0.01	8	0.70%	2	24.1	
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:	22	45.6
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	3	6.2
Pool frequency (channel widths/pool):	2.8	
Residual pool depth (avg):	0.29	

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1 **REACH 1**

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

Total hardwoods/1000	569
Total conifers/1000 ft	447
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	2.3	0.3	2.7	0.7	1.7	1.3	6.7
15-30cm	0.3	0.7	1.7	0.3	3.3	0.0	5.3	1.0
30-50cm	0.0	0.0	0.3	0.7	0.3	0.3	0.7	1.0
50-90cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.7	3.7	2.3	3.7	4.3	2.0	2.4	3.1

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	80	80	67
Shrub cover	37	43	27
Grass/forb cover	58	40	61

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	67	100	100
High terrace	17	0	0
Low terrace	17	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 (%)	27	31	33

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		
9	LF	1	HT	7	90	30	70	Conifer	1						
								Hardwood	3	1					
9	LF	2	HS	20	70	45	50	Conifer				1			
								Hardwood							
9	LF	3	HS	35	90		85	Conifer			4				
								Hardwood	2						
9	RT	1	HS	50	40	45	40	Conifer							
								Hardwood	2						
9	RT	2	HS	40	90	5	25	Conifer			5				
								Hardwood							
9	RT	3	HS	20	90	5	25	Conifer	2		5				
								Hardwood							
21	LF	1	LT	10	90	20	80	Conifer							
								Hardwood	1	1					
21	LF	2	HS	20	90	50	40	Conifer							
								Hardwood	2						
21	LF	3	HS	35	80	60	30	Conifer			1				
								Hardwood				1			
21	RT	1	HS	35	85	20	75	Conifer							
								Hardwood					1		
21	RT	2	HS	35	85	15	80	Conifer							
								Hardwood	4						
21	RT	3	HS	25	85	30	70	Conifer							
								Hardwood							
30	LF	1	HS	35	90	80	10	Conifer			1				
								Hardwood	1						
30	LF	2	HS	50	90	80	10	Conifer	1						
								Hardwood	1	1	2				
30	LF	3	HS	38	55	25	70	Conifer				1			
								Hardwood	3						
30	RT	1	HS	25	85	25	75	Conifer							
								Hardwood					1		
30	RT	2	HS	20	55	65	35	Conifer							
								Hardwood	1						
30	RT	3	HS	45	0	15	85	Conifer							
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L SITE ID: 73 BUCK CREEK POST-TX (L-73)

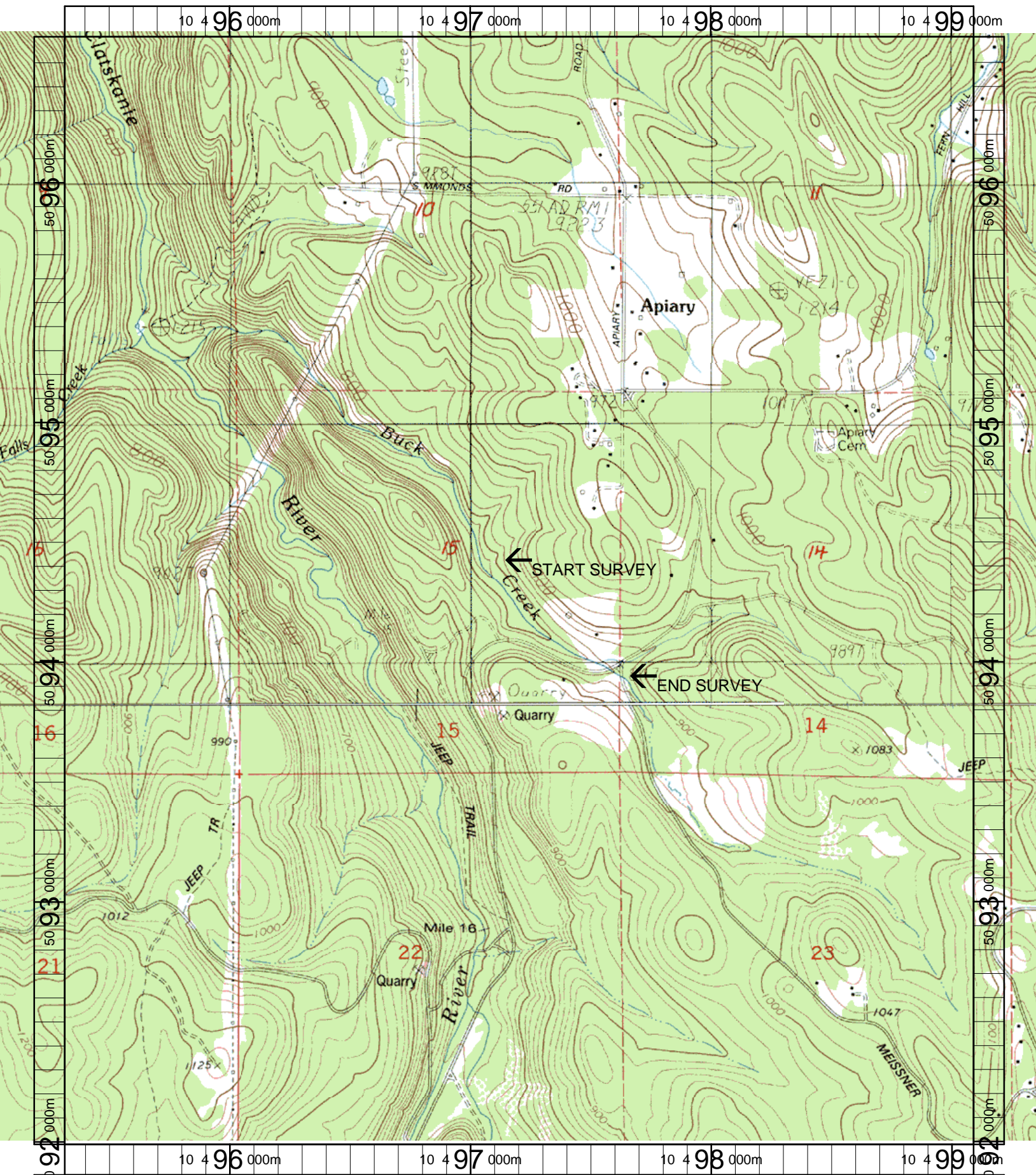
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	BP	01	23.1	BV	T = 11	START SURVEY ABOVE DAM
5	SD	00	64.1	BD	H = .5	
13	RB	01	165.6	BV, HS		
16	RB	00	187.3	BV, HS		OLD BEAVER STICKS
17	LP	00	193.4	HS	CUTTHROAT	CUTTHROAT & SCULPIN
18	RI	00	205.4	HS		
19	LP	00	213.6	HS		
20	RI	00	227.7	HS		BRAIDED CHANNEL
21	LP	00	235	HS		
26	RI	00	293	HS		
27	RI	00	305.5	HS		
28	LP	00	312.4	HS		
29	RB	01	343	HS		BRAIDED CHANNEL
32	SC	00	351.3		H = .25	
33	LP	00	354.9	HS		
34	RI	00	381.5	HS		
36	SC	00	383.5		H = .45	
37	LP	00	388.5	WL		RED-LEGGED FROG
41	LP	00	412.2	HS		
42	RI	00	421.6	HS		
43	LP	00	427.8			SCULPIN

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L SITE ID: 73 BUCK CREEK POST-TX (L-73)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
44	RR	00	456.3	HS		
46	RI	00	482.5	HS		



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

Location: 10 497198 E 5094302 N
 Caption: BUCK CREEK RESTORATION SITE - CLATSKANIE BASIN