

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

STREAM: Buck Creek (L-73)
BASIN: Clatskanie River
SURVEY TYPE: Pre-Tx
DATE: February 7, 2001
SURVEY CREW: Todd Boswell, Sean Allen
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 457 meters. The channel was single channel unconstrained in a broad valley floor. The average valley width index was 4.4 (range: 3.0 - 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 2.2 percent. Riffles (55%) and scour pools (21%) dominated stream habitat. Sand (42%) and gravel (37%) dominated stream substrate. Wood volume was low at 16.2 m³/100m.

COMMENTS:

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

REACH SUMMARY

REACH 1

T6N-R3W-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	0
Moderate V-shape	0	Multiple Terraces	100
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 4.4 range: 3.0-6.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	100
Bedrock	0	Multiple Channel	0
Terrace	0	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	457	1,116	0
Secondary	171	176	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	2.3	Width	8.2	28.3	10.4
Depth	0.44	Height	0.5	1.0	0.6
		W:D ratio	16.4	Entrenchment	4.2

Stream Flow Type: HF Water Temp: 4.5-4.5°C
 Avg. Unit Gradient: 2.2% Habitat Units/100m: 6.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	D30	C15

Bank Condition and Shade

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

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	83	18.2
Volume (m ³)	74	16.2
Key pieces ($\geq 10m \times 0.6m$)	0	0.0

HABITAT UNIT SUMMARY

REACH 1

T6N-R3W-S15NW

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	Cbbl	Bldr	Bdrk
CASCADE/BEDROCK	1	29	4.0	0.30	115	0	0	10	10	0	0	80
POOL-BACKWATER	4	22	2.8	0.48	59	0	20	58	23	0	0	0
POOL-DAMMED	2	21	4.1	0.45	83	0	10	63	28	0	0	0
POOL-LATERAL SCOUR	8	89	2.7	0.71	249	0	9	43	39	10	0	0
POOL-PLUNGE	2	11	2.2	0.78	24	0	13	61	26	0	0	0
PUDDLED CHANNEL	1	65	0.5	0.10	33	0	15	35	50	0	0	0
RIFFLE	17	386	1.8	0.33	709	0	8	40	46	6	0	0
STEP/BEDROCK	1	4	5.0	0.20	20	0	0	0	0	0	0	100
STEP/COBBLE	1	1	1.6	0.20	1	0	10	20	40	30	0	0
STEP/LOG	1	1	2.8	0.20	1	0	10	60	30	0	0	0
Total:	38	627	2.3	0.44	1,293	0	Avg:10	42	37	6	0	5

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	Boulders #/100m ²
Dammed & BW Pools	6	43	3.2	0.47	142	11.01	0	0.0
Scour Pools	10	100	2.6	0.72	273	21.10	0	0.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	17	386	1.8	0.33	709	54.82	0	0.0
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	1	29	4.0	0.30	115	8.88	0	0.0
Step/Falls	3	5	3.1	0.20	22	1.68	0	0.0
Dry	1	65	0.5	0.10	33	2.51	0	0.0

POOL SUMMARY

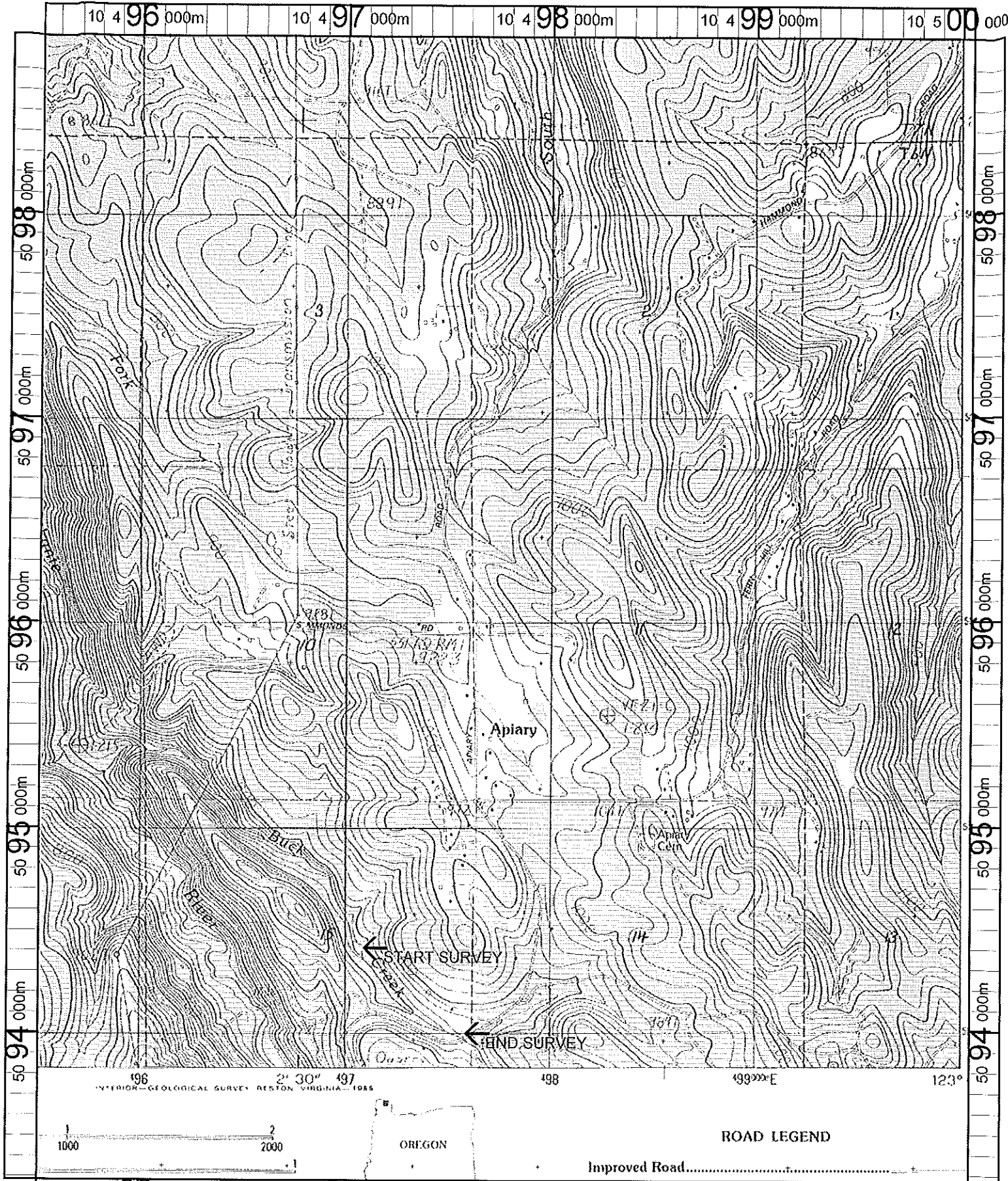
	Total	#/Km
All Pools	16	25.5
Pools ≥1m deep:	1	1.6
Complex pools (LWD pieces≥3):	4	6.4
Pool Frequency (channel widths/pool):	4.8	
Residual pool depth (avg)	0.46m	

STREAM SUMMARY

BUCK CREEK PRE-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area					Total Large Boulder	
					S/O	Sand	Grvl	Cbbl	Bldr		Bdrk
38	627	2.3	0.44	1,293	10	42	37	6	0	5	0

Habitat Group	Wetted Area	
	(m ²)	Percent
Scour Pool	273	21.1
Backwater Pools	142	11.0
Glide	0	0.0
Riffle	709	54.8
Rapid	0	0.0
Cascade	115	8.9
Step	22	1.7
Dry	33	2.5



Name: DELENA
 Date: 5/29/101
 Scale: 1 inch equals 2000 feet

Location: 10 497683 E 5096051 N
 Caption: BUCK CREEK RESTORATION SITE - CLATSKANIE BASIN