

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

STREAM: Byron Creek (U-10)  
BASIN: Umpqua River  
SURVEY TYPE: Post-Tx  
DATE: February 13, 2001  
SURVEY CREW: David Hering, Andrew Gross  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 11.8 km<sup>2</sup>  
USGS MAPS: Tenmile  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Byron Creek habitat survey extended 495 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 10.0. Land use for the reach was rural residential and second growth (15-30 cm dbh) trees. The average unit gradient was 1.9 percent. Riffles (50%) and scour pools (37%) dominated stream habitat. Gravel (48%) and bedrock (23%) dominated stream substrate. Wood volume was moderate at 25.7 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 SUMMARY

REACH 1

T29S-R7W-S29NE

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: 10.0 range: 10.0-10.0

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	495	1,427	0
Secondary	6	29	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.0	Width	5.0	7.3	9.7
Depth	0.25	Height	0.5	1.0	1.7
		W:D ratio	10.1	Entrenchment	1.5

Stream Flow Type: MF Water Temp: 4.0-4.0°C  
Avg. Unit Gradient: 1.9% Habitat Units/100m: 6.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	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	0%	Reach avg: 0%
Undercut Banks	0%	Range: 0- 0

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	38	7.7
Volume (m <sup>3</sup> )	127	25.7
Key pieces (≥10m x 0.6m)	0	0.0

HABITAT UNIT SUMMARY

REACH 1

T29S-R7W-S29NE

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	Cbbl	Bldr	Bdrk
POOL-BACKWATER	1	3	6.4	0.55	18	0	15	15	65	5	0	0
POOL-ISOLATED	1	3	3.3	0.60	11	0	15	80	5	0	0	0
POOL-LATERAL SCOUR	13	156	3.1	0.39	479	0	14	16	45	2	0	22
POOL-STRAIGHT SCOUR	2	23	3.1	0.33	66	0	15	13	40	0	0	33
RAPID/BEDROCK	1	26	2.4	0.05	61	0	0	5	5	0	0	90
RAPID/BOULDERS	2	19	2.4	0.09	47	0	0	5	73	23	0	0
RIFFLE	11	254	2.8	0.10	723	0	7	10	45	9	0	30
STEP/COBBLE	3	17	2.9	0.08	51	0	2	7	83	9	0	0
<b>Total:</b>	<b>34</b>	<b>501</b>	<b>3.0</b>	<b>0.25</b>	<b>1,456</b>	<b>0</b>	<b>Avg:10</b>	<b>14</b>	<b>48</b>	<b>6</b>	<b>0</b>	<b>23</b>

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m <sup>2</sup> )	Percent	Large Boulders Number	#/100m <sup>2</sup>
Dammed & BW Pools	2	6	4.9	0.58	29	1.98	0	0.0
Scour Pools	15	179	3.1	0.38	545	37.44	0	0.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	11	254	2.8	0.10	723	49.66	0	0.0
Rapids	3	45	2.4	0.07	108	7.42	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	3	17	2.9	0.08	51	3.51	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

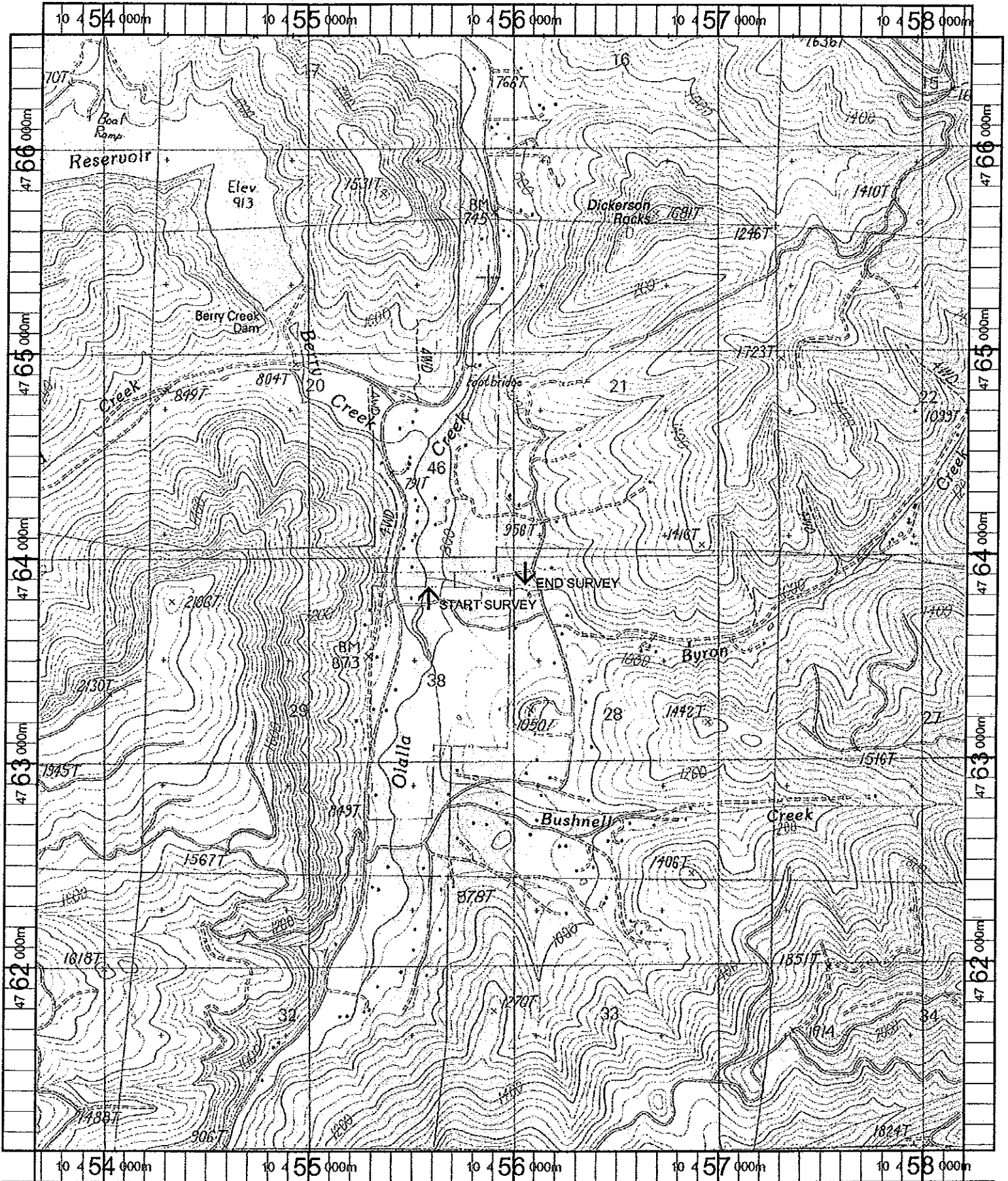
All Pools	<u>Total</u>	<u>#/Km</u>
	17	33.9
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	5	10.0
Pool Frequency (channel widths/pool):	5.8	
Residual pool depth (avg)	0.31m	

STREAM SUMMARY

BYRON CREEK POST-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
34	501	3.0	0.25	1,456	10	14	48	6	0	23	0

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Scour Pool	545	37.4
Backwater Pools	29	2.0
Glide	0	0.0
Riffle	723	49.7
Rapid	108	7.4
Cascade	0	0.0
Step	51	3.5
Dry	0	0.0



Name: TENMILE  
 Date: 11/1/100  
 Scale: 1 inch equals 2000 feet

Location: 10 45854 E 4763804 N  
 Caption: BYRON CREEK RESTORATION SITE - SOUTH UMPQUA BASIN