

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

STREAM: Charlotte Creek (U-14)
BASIN: Umpqua River
SURVEY TYPE: Post-Tx
DATE: February 23, 2001
SURVEY CREW: Andrew Gross, David Hering
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 10.0 km²
USGS MAPS: Deer Head Point
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Charlotte Creek habitat survey extended 542 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.7 (range: 2.0 - 3.5). Land use for the reach was large (30-50 cm dbh) trees and mining. The average unit gradient was 0.7 percent. Riffles (56%) and scour pools (40%) dominated stream habitat. Gravel (56%) and sand (24%) dominated stream substrate. Wood volume was high at 32.0 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.

REACH SUMMARY

REACH 1

T22S-R10W-S17NW

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: 2.7 range: 2.0-3.5

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	542	3,768	0
Secondary	34	91	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	6.4	Width	11.5	17.3	17.2
Depth	0.54	Height	0.7	1.4	2.1
		W:D ratio	16.7	Entrenchment	1.5

Stream Flow Type: MF Water Temp: 7.0-7.0°C
 Avg. Unit Gradient: 0.7% Habitat Units/100m: 4.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	MI
Riparian Vegetation:	D15	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)	107	19.7
Volume (m ³)	174	32.0
Key pieces (≥10m x 0.6m)	5	0.9

HABITAT UNIT SUMMARY

REACH 1 T22S-R10W-S17NW 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
POOL-ALCOVE	1	21	3.4	0.40	70	0	45	50	5	0	0	0
POOL-BACKWATER	2	13	1.7	0.53	21	0	8	20	70	3	1	0
POOL-LATERAL SCOUR	9	158	7.3	0.97	1,147	0	6	31	51	9	3	0
POOL-STRAIGHT SCOUR	1	51	7.5	0.90	379	0	5	40	25	10	20	0
RAPID/BOULDERS	1	14	4.6	0.45	63	0	0	5	14	24	57	0
RIFFLE	11	265	7.0	0.19	1,857	0	3	15	74	7	1	0
RIFFLE W/ POCKETS	2	55	6.0	0.43	321	0	23	30	27	2	18	0
Total:	27	576	6.4	0.54	3,858	0	Avg: 7	24	56	7	6	0

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	#/100m ²
Dammed & BW Pools	3	34	2.2	0.48	91	2.35	0	0.0
Scour Pools	10	209	7.3	0.96	1,526	39.56	0	0.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	13	320	6.9	0.23	2,178	56.46	0	0.0
Rapids	1	14	4.6	0.45	63	1.63	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	0	0	-	-	0	0.00	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

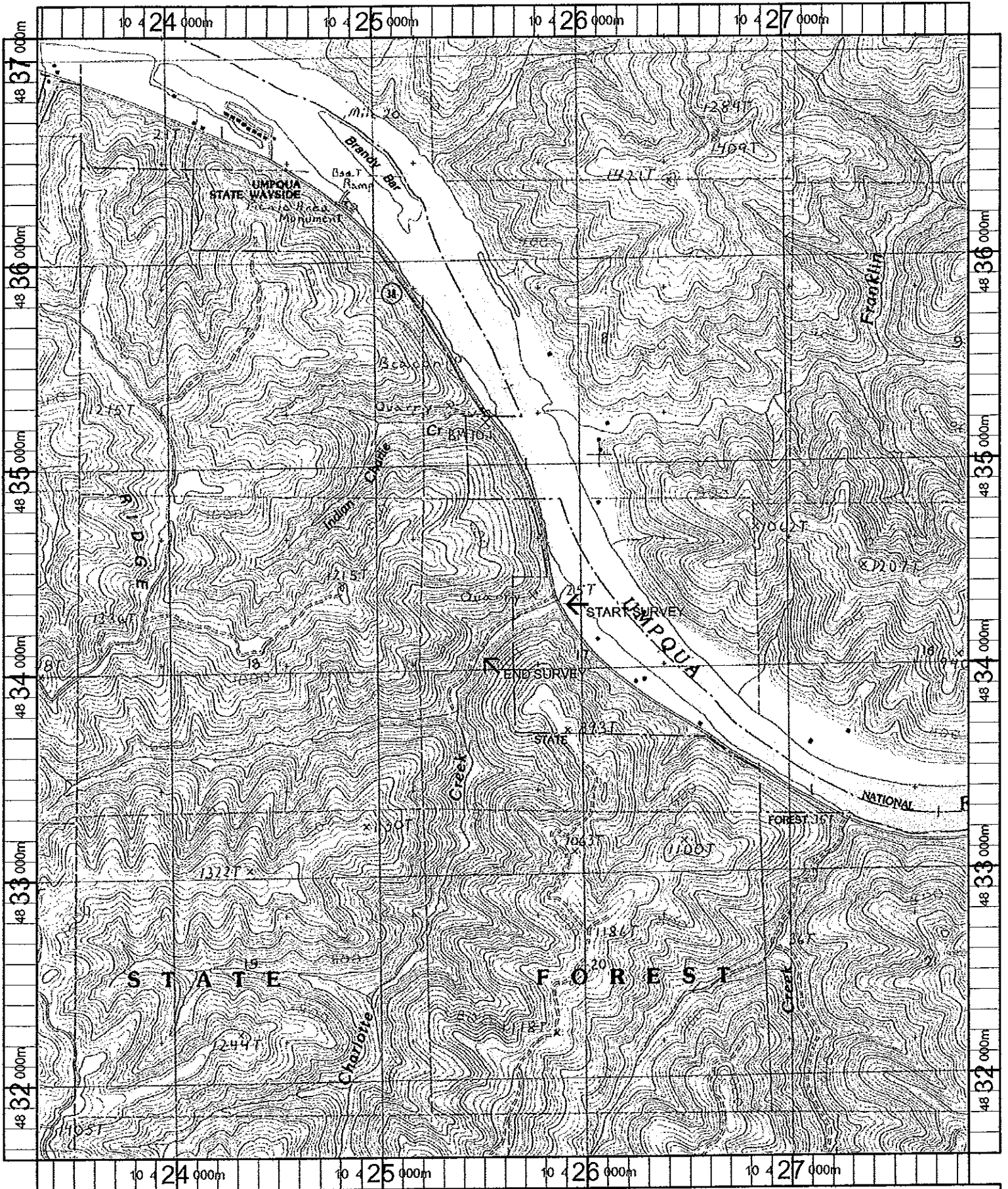
All Pools	<u>Total</u>	<u>#/Km</u>
	13	22.6
Pools ≥1m deep:	4	6.9
Complex pools (LWD pieces ≥3):	9	15.6
Pool Frequency (channel widths/pool):	3.9	
Residual pool depth (avg)	0.72m	

STREAM SUMMARY

CHARLOTTE CREEK POST-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
27	576	6.4	0.54	3,858	7	24	56	7	6	0	0

Habitat Group	Wetted Area	
	(m ²)	Percent
Scour Pool	1,526	39.6
Backwater Pools	91	2.3
Glide	0	0.0
Riffle	2,178	56.5
Rapid	63	1.6
Cascade	0	0.0
Step	0	0.0
Dry	0	0.0



Name: DEER HEAD POINT
 Date: 10/23/100
 Scale: 1 Inch equals 2000 feet

Location: 10 425514 E 4834339 N
 Caption: CHARLOTTE CREEK RESTORATION SITE - UMPQUA BASIN