

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

STREAM: Charlotte Creek (U-14)
BASIN: Umpqua River
SURVEY TYPE: Pre-Tx
DATE: August 16, 2000
SURVEY CREW: John Blanchard, Russ Macal
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 527 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 2.5 (range: 2.0 – 3.0). Land use for the reach was second growth (15-30 cm dbh) trees and mining. The average unit gradient was 1.0 percent. Scour pools (49%) and riffles (36%) dominated stream habitat. Gravel (71%) dominated stream substrate. Wood volume was low at 7.3 m³/100m.

COMMENTS:

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

REACH 1

T22S-R10W-17NW

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 avg: 2.5 range: 2.0-3.0

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	527	2,311	0
Secondary	29	86	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 3.6	Width	8.0	10.4	11.7
Depth 0.28	Height	0.3	0.5	1.7
	W:D ratio	28.7	Entrenchment	1.3

Stream Flow Type: LF Water Temp: 14.0-14.0°C
Avg. Unit Gradient: 1.0% Habitat Units/100m: 5.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	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	14%	Reach avg: 48%
Undercut Banks	8%	Range: 44- 58

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	75	14.2
Volume (m ³)	39	7.3
Key pieces ($\geq 10m \times 0.6m$)	0	0.0

REACH 1

T22S-R10W-17NW

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/BOULDERS	1	11	3.5	0.10	37	19	0	5	25	25	40	5
DRY UNITS	1	10	3.8	0.00	39	0	100	0	0	0	0	0
GLIDE	1	41	7.1	0.10	291	1	5	10	85	0	0	0
POOL-LATERAL SCOUR	9	166	4.2	0.68	791	6	5	16	76	3	0	0
POOL-STRAIGHT SCOUR	2	61	5.3	0.55	377	32	53	5	30	3	10	0
RIFFLE	16	267	2.8	0.06	862	20	2	12	80	6	1	0
Total:	30	556	3.6	0.28	2,396	78	Avg: 9	12	71	5	2	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	0	0	-	-	0	0.00	0	0.0
Scour Pools	11	227	4.4	0.65	1,168	48.73	38	3.3
Glides	1	41	7.1	0.10	291	12.15	1	0.3
Riffles	16	267	2.8	0.06	862	35.95	20	2.3
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	1	11	3.5	0.10	37	1.55	19	51.2
Step/Falls	0	0	-	-	0	0.00	0	0.0
Dry	1	10	3.8	0.00	39	1.62	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	11	19.8
Pools ≥1m deep:	1	1.8
Complex pools (LWD pieces ≥3):	8	14.4
Pool Frequency (channel widths/pool):	6.3	
Residual pool depth (avg)	0.45m	

STREAM SUMMARY

CHARLOTTE 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	
30	556	3.6	0.28	2,396	9	12	71	5	2	0	78

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	1,168	48.7
Backwater Pools	0	0.0
Glide	291	12.1
Riffle	862	36.0
Rapid	0	0.0
Cascade	37	1.5
Step	0	0.0
Dry	39	1.6

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	996
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	20
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	2.0	0.0	3.0	0.7	5.0	0.7	10.0
15-30cm	0.0	2.0	0.0	2.0	0.0	1.3	0.0	5.3
30-50cm	0.0	0.0	0.0	0.7	0.3	0.3	0.3	1.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
Total/100m ²	0.0	4.0	0.0	5.7	1.3	6.7	0.4	5.4

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	44		48		53	
Shrub cover	43		21		24	
Grass/forb cover	29		31		35	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	17		67		100
High terrace	50		33		0	
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 (%)	13		54		74	

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

Summary of riparian zone (0-100ft) extrapolated to 1,000 feet along stream

Total hardwoods/1000 ft	996
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	20

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.7	10.0
15-30cm	0.0	5.3
30-50cm	0.3	1.0
50-90cm	0.0	0.0
>90cm	0.3	0.0

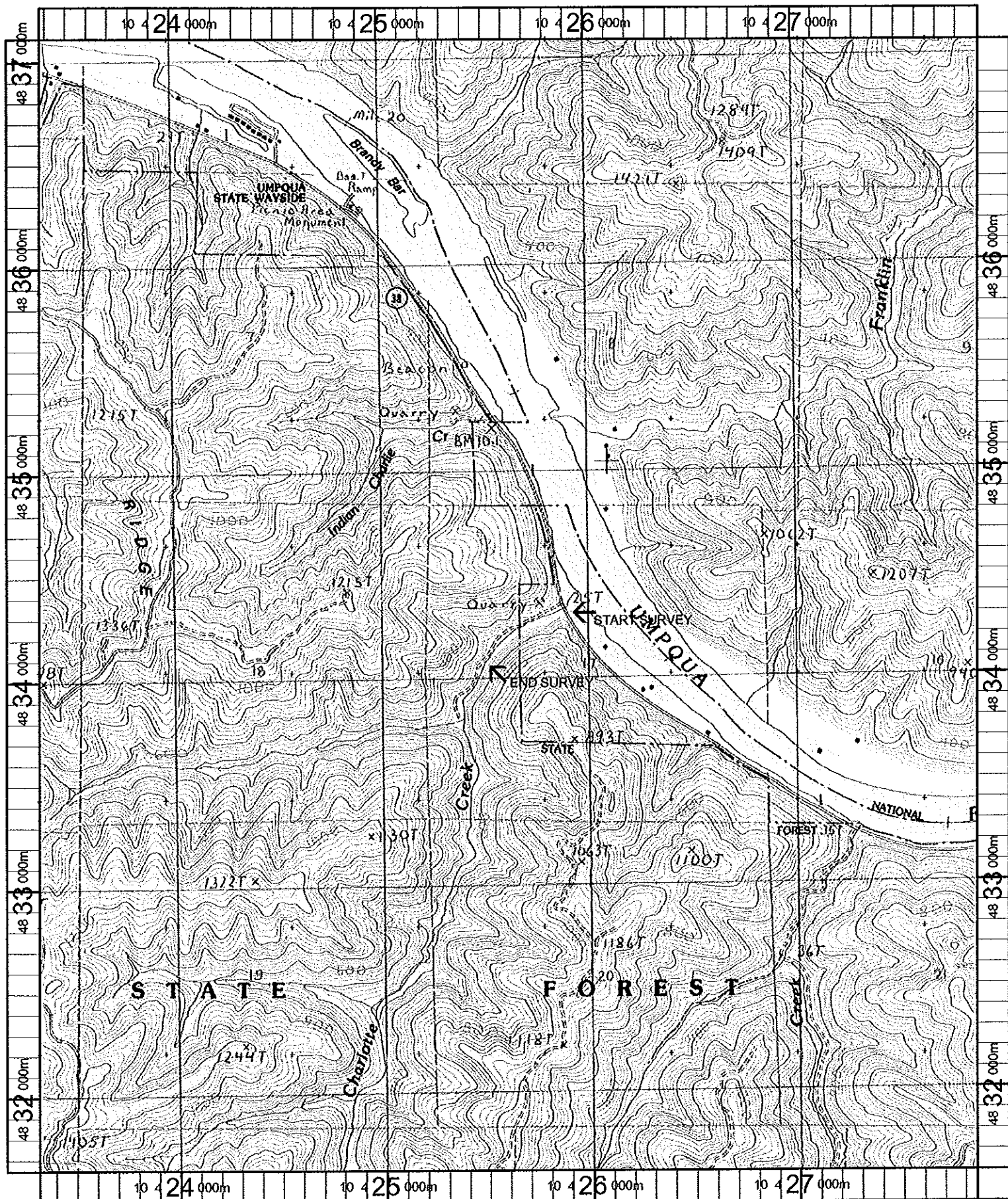
RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

VEGETATION DETAIL

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
11	LF	1	HT	0.0	65	70	20	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
11	LF	2	HS	80.0	60	20	20	Conifer	0	0	0	0	0	
								Hardwood	3	0	0	0	0	
11	LF	3	HS	80.0	60	15	60	Conifer	2	0	0	0	0	
								Hardwood	0	0	0	0	0	
11	RT	1	RB	0.0	10	0	5	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	ROCK QUARRY ON RT,
11	RT	2	HS	80.0	0	0	0	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	QUARRY - SOURCE OF
11	RT	3	HS	80.0	5	10	5	Conifer	0	0	1	0	0	
								Hardwood	1	0	0	0	0	
14	LF	1	HT	0.0	20	50	50	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
14	LF	2	HT	0.0	20	10	70	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
14	LF	3	HS	95.0	60	25	60	Conifer	0	0	0	0	0	
								Hardwood	4	0	0	0	0	
14	RT	1	RB	0.0	30	60	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
14	RT	2	HS	80.0	70	30	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
14	RT	3	HS	80.0	70	20	60	Conifer	0	0	0	0	0	
								Hardwood	0	4	0	0	0	
22	LF	1	HS	80.0	70	65	10	Conifer	0	0	0	0	0	
								Hardwood	3	0	0	0	0	
22	LF	2	HS	85.0	65	60	15	Conifer	0	0	0	0	0	
								Hardwood	2	1	1	0	0	
22	LF	3	HS	85.0	70	70	5	Conifer	0	0	0	0	1	
								Hardwood	3	0	1	0	0	
22	RT	1	HT	0.0	70	10	70	Conifer	0	0	0	0	0	
								Hardwood	3	4	0	0	0	
22	RT	2	HT	0.0	70	5	20	Conifer	0	0	0	0	0	
								Hardwood	4	3	0	0	0	
22	RT	3	HS	25.0	50	5	20	Conifer	0	0	0	0	0	
								Hardwood	7	0	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