

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

STREAM: Fish Creek (MS-32)
BASIN: Millicoma River
SURVEY TYPE: Pre-Tx
DATE: June 29, 2001
SURVEY CREW: John Blanchard, Franklin Wall
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.0 km²
USGS MAPS: Elk Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Fish Creek habitat survey extended 786 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.7 (range: 1.0 – 2.5). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.5 percent. Rapids (62%) and riffles (19%) dominated stream habitat. Cobble (36%) and bedrock (26%) dominated stream substrate. Wood volume was high at 38.5 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.

REACH 1

T23S-R10W-S5NW

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	100	Multiple Terraces	0
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 1.7 range: 1.0-2.5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100	Single Channel	0
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	786	2,278	0
Secondary	10	15	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 2.8	Width 5.5	8.3	9.3
Depth 0.21	Height 0.5	1.0	2.4
	W:D ratio 10.6	Entrenchment 1.5	

Stream Flow Type: LF Water Temp: 10.0-10.0°C
Avg. Unit Gradient: 2.5% Habitat Units/100m: 5.5

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	4%	Reach avg: 77%
Undercut Banks	7%	Range: 44- 89

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	145	18.4
Volume (m ³)	303	38.5
Key pieces (≥10m x 0.6m)	10	1.3

REACH 1

T23S-R10W-S5NW

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-LATERAL SCOUR	5	77	2.6	0.56	193	4	8	14	29	30	1	18
POOL-PLUNGE	2	7	3.3	0.65	25	0	5	13	35	38	10	0
POOL-STRAIGHT SCOUR	3	40	4.0	0.47	172	12	7	10	7	17	7	53
RAPID/BEDROCK	10	321	3.5	0.10	1,125	56	0	2	3	3	11	80
RAPID/BOULDERS	6	133	2.2	0.17	294	24	1	12	19	52	16	0
RIFFLE	10	203	2.2	0.14	446	40	1	8	23	58	11	0
STEP/BEDROCK	1	1	3.8	0.05	2	0	0	0	0	0	0	100
STEP/COBBLE	5	14	2.3	0.08	33	12	0	5	22	60	12	0
STEP/LOG	2	1	3.5	0.01	4	0	5	15	44	36	0	0
Total:	44	796	2.8	0.21	2,293	148	Avg: 2	8	18	36	10	26

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	10	124	3.1	0.55	390	17.00	16	4.1
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	10	203	2.2	0.14	446	19.46	40	9.0
Rapids	16	453	3.0	0.12	1,419	61.86	80	5.6
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	8	16	2.8	0.06	39	1.68	12	31.1
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	10	12.6
Pools >1m deep:	0	0.0
Complex pools (LWD pieces ≥ 3):	5	6.3
Pool Frequency (channel widths/pool):	14.5	
Residual pool depth (avg)	0.45m	

STREAM SUMMARY

FISH 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	
44	796	2.8	0.21	2,293	2	8	18	36	10	26	148

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	390	17.0
Backwater Pools	0	0.0
Glide	0	0.0
Riffle	446	19.5
Rapid	1,419	61.9
Cascade	0	0.0
Step	39	1.7
Dry	0	0.0

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	711
Total conifers/1000 ft	427
Total conifers >20" dbh/1000 ft	20
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	0.7	0.0	0.0	1.3	0.0	2.3	0.7	3.7
15-30cm	0.0	4.0	1.3	1.3	2.7	0.3	4.0	5.7
30-50cm	0.0	1.3	1.0	0.3	1.0	0.7	2.0	2.3
50-90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m ²	0.7	5.3	2.3	3.0	4.0	3.3	2.3	3.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	75		79		78	
Shrub cover	22		9		8	
Grass/forb cover	37		60		56	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	67		83		100
High terrace	0		0		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	33		17		0	
Riprap	0		0		0	
Surface slope (%)	37		47		59	

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	711
Total conifers/1000 ft	427
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	3.7
15-30cm	4.0	5.7
30-50cm	2.0	2.3
50-90cm	0.3	0.0
>90cm	0.0	0.0

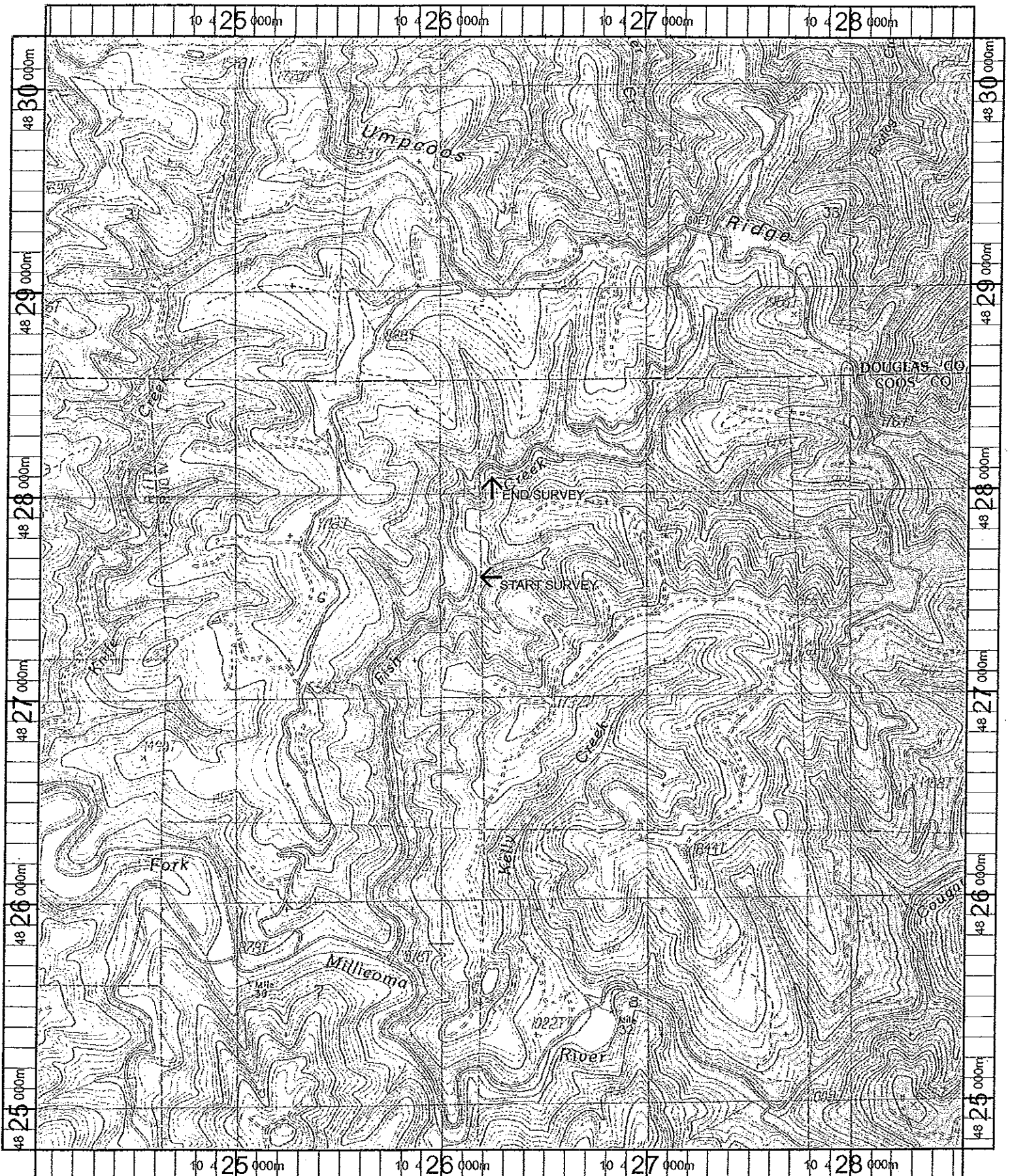
RIPARIAN ZONE VEGETATION

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	
16	LF	1	RB	0.0	75	10	10	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
16	LF	2	HS	65.0	95	20	60	Conifer	0	0	0	0	0	
								Hardwood	4	1	0	0	0	
16	LF	3	HS	60.0	75	20	15	Conifer	0	0	0	1	0	
								Hardwood	2	0	0	0	0	
16	RT	1	HS	40.0	75	0	70	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
16	RT	2	HS	45.0	80	0	70	Conifer	0	0	0	0	0	
								Hardwood	0	1	1	0	0	
16	RT	3	HS	45.0	75	0	70	Conifer	0	0	1	0	0	
								Hardwood	0	0	0	0	0	
35	LF	1	HS	50.0	80	70	20	Conifer	0	0	0	0	0	
								Hardwood	0	4	0	0	0	
35	LF	2	RB	0.0	75	10	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
35	LF	3	HS	70.0	80	10	70	Conifer	0	1	0	0	0	
								Hardwood	4	0	2	0	0	
35	RT	1	HS	60.0	75	0	0	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
35	RT	2	HS	60.0	80	20	70	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
35	RT	3	HS	65.0	75	20	70	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
40	LF	1	RB	0.0	70	10	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	2	0	0	
40	LF	2	HS	75.0	65	5	80	Conifer	0	3	0	0	0	
								Hardwood	0	1	0	0	0	
40	LF	3	HS	75.0	80	0	70	Conifer	0	2	1	0	0	
								Hardwood	1	0	0	0	0	
40	RT	1	HS	70.0	75	40	60	Conifer	2	0	0	0	0	
								Hardwood	0	2	2	0	0	
40	RT	2	HS	35.0	80	0	70	Conifer	0	1	3	0	0	
								Hardwood	0	0	0	0	0	
40	RT	3	HS	40.0	80	0	40	Conifer	0	5	1	0	0	
								Hardwood	0	0	0	0	0	



<p>Name: ELK PEAK Date: 11/7/100 Scale: 1 inch equals 2000 feet</p>	<p>Location: 10 426209 E 4827491 N Caption: FISH CREEK RESTORATION SITE - MILLICOMA BASIN</p>
---	--