

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

STREAM: North Fork Rock Creek Upper (NC-104)
BASIN: Nehalem River
SURVEY TYPE: Reference
DATE: July 17, 1996
SURVEY CREW: Barry Thom, Matt Rowe
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 17.9 km²
USGS MAPS: Sunset Spring
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The North Fork Rock Creek Upper habitat survey extended 555 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.9 (range: 1.5 – 2.5). Land use for the reach was timber harvest. The average unit gradient was 1.5 percent. Scour pools (34%) and rapids (22%) dominated stream habitat. Bedrock (24%) and gravel (23%) dominated stream substrate. Wood volume was moderate at 27.2 m³/100m.

COMMENTS:

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

REACH 1

T4N-R6W-S8SW

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: 1.9 range: 1.5-2.5

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	555	2,660	0
Secondary	69	215	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	4.0	Width	9.5	0.0	12.3
Depth	0.31	Height	0.5	0.0	0.9
W:D ratio		19.1	Entrenchment ***		

Stream Flow Type: LF Water Temp: 0.0-0.0°C
 Avg. Unit Gradient: 1.5% Habitat Units/100m: 8.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	
Riparian Vegetation:	D30	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 92%
Undercut Banks	2%	Range: 61-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	98	17.7
Volume (m ³)	151	27.2
Key pieces (≥10m x 0.6m)	3	0.5

REACH 1 T4N-R6W-S8SW 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	2	41	6.3	0.23	266	0	3	3	5	5	0	85
DRY CHANNEL	1	16	9.0	0.00	144	0	0	35	40	20	5	0
GLIDE	4	64	4.9	0.28	304	0	8	13	18	6	1	55
POOL-ALCOVE	1	3	1.5	0.20	5	0	100	0	0	0	0	0
POOL-BACKWATER	3	16	1.4	0.28	23	0	60	27	13	0	0	0
POOL-DAMMED	1	8	3.5	0.42	26	0	0	10	20	10	0	60
POOL-ISOLATED	3	4	1.2	0.32	6	0	42	42	17	0	0	0
POOL-LATERAL SCOUR	11	125	3.5	0.48	441	0	15	25	25	18	5	12
POOL-PLUNGE	1	12	6.0	0.50	72	0	10	30	30	15	5	10
POOL-STRAIGHT SCOUR	8	83	5.3	0.53	466	0	8	23	32	24	2	13
RAPID/BEDROCK	2	27	4.5	0.22	117	0	3	5	20	13	10	50
RAPID/BOULDERS	7	115	4.6	0.17	515	0	0	14	29	28	4	25
RIFFLE	4	96	4.0	0.14	441	0	0	23	38	34	4	3
STEP/BEDROCK	3	7	2.3	0.07	16	0	0	0	0	0	0	100
STEP/COBBLE	2	8	4.3	0.11	34	0	0	10	30	55	5	0
Total:	53	624	4.0	0.31	2,875	0	Avg:13	19	23	18	3	24

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	8	30	1.6	0.30	60	2.07	0	0.0
Scour Pools	20	220	4.3	0.50	979	34.05	0	0.0
Glides	4	64	4.9	0.28	304	10.58	0	0.0
Riffles	4	96	4.0	0.14	441	15.35	0	0.0
Rapids	9	142	4.6	0.18	632	21.97	0	0.0
Cascades	2	41	6.3	0.23	266	9.25	0	0.0
Step/Falls	5	15	3.1	0.09	50	1.72	0	0.0
Dry	1	16	9.0	0.00	144	5.01	0	0.0

POOL SUMMARY

	Total	#/Km
All Pools	28	44.9
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	9	14.4
Pool Frequency (channel widths/pool):	2.4	
Residual pool depth (avg)	0.31m	

STREAM SUMMARY

NF ROCK UPPER 1996 REFERENCE

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	
53	624	4.0	0.31	2,875	13	19	23	18	3	24	0

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	979	34.0
Backwater Pools	60	2.1
Glide	304	10.6
Riffle	441	15.3
Rapid	632	22.0
Cascade	266	9.3
Step	50	1.7
Dry	144	5.0

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) (1 transects)

Total hardwoods/1000 ft	1,097
Total conifers/1000 ft	0
Total conifers >20" dbh/1000 ft	0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-30cm	0.0	1.0	0.0	4.0	0.0	3.0	0.0	8.0
30-50cm	0.0	1.0	0.0	5.0	0.0	3.0	0.0	9.0
50-90cm	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m ²	0.0	3.0	0.0	9.0	0.0	6.0	0.0	6.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	95		85		95	
Shrub cover	0		5		20	
Grass/forb cover	100		95		80	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
Hillslope	50		100		100	
High terrace	50		0		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	13		30		50	

Summary of Riparian Zone (0-30m) for all reaches (1 transects)

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

Total hardwoods/1000 ft	1,097
Total conifers/1000 ft	
Total conifers >20" dbh/1000 ft	0

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	0.0	0.0
15-30cm	0.0	8.0
30-50cm	0.0	9.0
50-90cm	0.0	1.0
>90cm	0.0	0.0

STREAM HABITAT STATUS SHEET

STREAM NAME NF Reach upper 1996 Reference **CONTRACT** _____
BASIN Nobles **CREW** B. Thom, M. Ponce

DATE FILENAME COMMENTS

ENTRY	DATE	FILENAME	ENTERED BY:
REACH	11/28/01	R096R HR.DBF	<i>[Signature]</i>
UNIT 1		U1.DBF	
UNIT 2		U2.DBF	
UNIT CHECK		CHK.DBF	
RIPARIAN		RP.DBF	
WOOD		WD.DBF	

ANALYSIS	DATE	FILENAME	ANALYZED BY:
CALIBRATION		CAL.DBF	
MAP SUMMARY/CORRECTIONS			
WOOD EXPAND		WE.DBF	
UNIT LINK		UX.DBF	
UNIT LINK WITH WOOD		UX2.DBF	
PROFILES + COMMENT SUMMARY		PRO.XLS	
HABITAT REPORT LINK		LNK.DBF	
RIPARIAN LINK		RLK.DBF	

FINAL REPORT	DATE	FILENAME	COMPLETED BY:
BAR GRAPHS		BAR.XLS	
COVER + REPORT		COV.DOC	
PHOTOS			
REPORT MAPS			
REACH ENTRY			

COMMENTS / NOTES

OREGON PLAN / REFERENCE SURVEYS			
BASIN AREA	BEAVER DAMS	#	MAJOR FAILURES #
STREAM ORDER	BEAVER ACTIVITY	#	DEBRIS JAMS #
JAMS FROM WOOD SHEETS # <u>4</u>	CULVERT CROSSINGS	#	HABITAT STRUCTURES #