

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

STREAM: Upper North Fork Rock Creek (N104)
BASIN: Nehalem River
SURVEY TYPE: Reference
DATE: March 15, 2002
SURVEY CREW: Sean Allen, Rachel Werner
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 17.9km²
USGS MAPS: Sunset Spring
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Upper North Fork Rock Creek habitat survey extended 507 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.8 (range: 1.5 – 5.0). Land use for the reach was young (3-15 cm dbh) trees. The average unit gradient was 2.7 percent. Riffles (72%) and rapids (14%) dominated stream habitat. Sand (26%), cobble (24%) and gravel (22%) dominated stream substrate. Wood volume was high at 32.3 m³/100m.

COMMENTS:

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

The crew noted evidence of beaver activity during the survey.

REACH

T4N-R6W-S8SW

REACH

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	2.8	VWI Range:	1.5 - 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	507	4,011	0
Secondary	139	269	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 2
Width: 5.6	Width: 14.8	26.1 (21 - 36)	29.5 (22 - 37)
Depth: 0.41	Height: 0.7	1.4 (1.4 - 1.4)	1.5 (1.5 - 1.5)

W:D ratio: 21.2
Stream Flow Type: MF
Average Unit Gradient: 2.7%
Water temperature (°C): 4.0 - 4.0

Entrenchment (ACW:FPW ratio): 1.9
Habitat Units/100m (total channel length): 4.8
Habitat Units/100m (primary channel length): 6.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	
Riparian Vegetation:	D15	G

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	121	23.9
Volume (m ³):	164	32.3
Key pieces (>=12m x 0.60m):	3	0.6

OREGON DEPARTMENT OF FISH AND WILDLIFE

NF ROCK UPPER - REFER (N-104)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

3/15/2002

REACH	T4N-R6W-S8SW							REACH					
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	Cbl	Bldr	Bdrk	
POOL-BACKWATER	6	28	2.2	0.28	66	0	21	66	6	5	2	0	
POOL-ISOLATED	1	3	2.0	0.35	6	0	30	65	0	0	5	0	
POOL-LATERAL SCOUR	1	22	7.8	1.00	172	0	0	15	40	20	5	20	
POOL-STRAIGHT SCOUR	2	43	6.7	1.05	273	0	3	8	33	28	18	13	
PUDDLED UNIT	2	49	1.6	0.55	75	0	25	45	13	18	0	0	
RAPID/BOULDERS	3	79	7.2	0.42	582	0	0	5	28	32	27	8	
RIFFLE	14	418	6.8	0.33	3,064	0	4	14	28	35	14	4	
STEP/BEDROCK	2	5	8.1	0.33	41	0	0	5	13	13	25	45	
Total:	31	646	5.6	0.41	4,279	0	Avg: 9	26	22	24	12	7	

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	7	31	2.2	0.29	72	1.68%	0	0.0	
Scour Pools	3	65	7.1	1.03	445	10.40%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	418	6.8	0.33	3,064	71.62%	0	0.0	
Rapids	3	79	7.2	0.42	582	13.59%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	5	8.1	0.33	41	0.97%	0	0.0	
Dry	2	49	1.6	0.55	75	1.75%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	10	15.5	19.7
Pools >=1m deep:	3	4.6	5.9
Complex pools (LWD pieces>=3):	3	4.6	5.9
Pool frequency (channel widths/pool):	4.4		
Residual pool depth (avg):	0.65		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 104 NF ROCK UPPER - REFER (N-104)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RI	00	37.3		HABITAT WOOD FROM UPSTREAM?
5	IP	10	103.7	/SS	
6	RB	01	129.6	TJ/	
10	SR	00	176.6		H = .75
13	LP	00	219.8	BV	
17	BW	10	282.6	BV	
20	SR	00	346.8		H = .6
24	BW	10	410	/SS	
27	PD	02	440.4	/SS	
30	RI	01	507.3	/TJ	