

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

STREAM: Upper North Fork Rock Creek (N105)
BASIN: Nehalem River
SURVEY TYPE: Post-Tx
DATE: March 15, 2002
SURVEY CREW: Sean Allen, Rachel Werner
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 17.9 km²
USGS MAPS: Sunset Spring
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Upper North Fork Rock Creek habitat survey extended 398 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 - 4.5). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 4.3 percent. Riffles (53%) and scour pools (33%) dominated stream habitat. Gravel (45%) and cobble (21%) dominated stream substrate. Wood volume was high at 35.0 m³/100m.

COMMENTS:

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

The crew noted several habitat structures as well as 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 - 4.5

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	398	3,732	0
Secondary	129	421	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 6.8	Width: 13.0	28.1 (11.2 - 43)	28.5 (12 - 45)
Depth: 0.74	Height: 0.7	1.3 (1.2 - 1.4)	1.5 (1.5 - 1.5)

W:D ratio: 19.7

Entrenchment (ACW:FPW ratio): 2.2

Stream Flow Type: MF

Habitat Units/100m (total channel length): 6.5

Average Unit Gradient: 4.3%

Habitat Units/100m (primary channel length): 8.5

Water temperature (°C): 4.0 - 4.0

Riparian, Bank, and Wood Summary

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

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):	109	27.4
Volume (m ³):	139	35.0
Key pieces (>=12m x 0.60m):	4	1.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

NF ROCK UPPER POST-TX (N-105)

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-ALCOVE	1	11	6.5	0.40	72	0	100	0	0	0	0	0	
POOL-DAMMED	1	34	13.2	0.80	446	0	15	35	40	10	0	0	
POOL-LATERAL SCOUR	9	153	8.2	1.96	1,262	0	4	15	48	21	8	4	
POOL-PLUNGE	2	10	9.4	0.80	107	0	5	38	48	5	5	0	
RAPID/BOULDERS	1	8	2.6	0.15	21	0	1	9	60	20	10	0	
RIFFLE	12	257	6.2	0.26	1,885	0	0	10	44	32	11	3	
RIFFLE W/ POCKETS	2	50	5.5	0.25	328	0	8	15	68	10	0	0	
STEP/LOG	6	5	5.3	0.17	32	0	2	27	39	14	13	5	
Total:	34	527	6.8	0.74	4,153	0	Avg: 6	17	45	21	9	3	

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	2	45	9.9	0.60	518	12.47%	0	0.0	
Scour Pools	11	162	8.4	1.75	1,369	32.98%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	307	6.1	0.26	2,213	53.30%	0	0.0	
Rapids	1	8	2.6	0.15	21	0.50%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	6	5	5.3	0.17	32	0.76%	0	0.0	
Dry	0	0			0	0.00%	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:	13	24.7	32.6
Pools >=1m deep:	3	5.7	7.5
Complex pools (LWD pieces>=3):	5	9.5	12.6
Pool frequency (channel widths/pool):	3.1		
Residual pool depth (avg):	1.44		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 105 NF ROCK UPPER POST-TX (N-105)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RI	01	29.1	HS	
2	RI	01	60.2	HS	
5	SL	02	60.2		H = .4
6	LP	00	77.9	BV	
8	PP	00	105.3	HS	
9	SL	00	107.3		H = .5
10	DP	01	141.1	TJ/	
12	LP	00	163.9	HS	
16	SL	01	236.9		H = .2
17	RI	01	265.9	TJ/	
21	SL	02	265.9		H = .4
24	SL	01	282		H = .8
28	LP	01	330.5	HS	
29	SL	01	331		H = .5
33	LP	00	380.1	HS	