

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

STREAM: Lower North Fork Rock Creek (N103)
BASIN: Nehalem River
SURVEY TYPE: Post-Tx
DATE: February 12, 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 Lower North Fork Rock Creek habitat survey extended 650 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.8 (range: 1-3). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.9 percent. Riffles (39%) and scour pools (38%) dominated stream habitat. Gravel (46%) and cobble (19%) dominated stream substrate. Wood volume was low at 17.8 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-S16SW

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	1.8	VWI Range:	1 - 3

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	650	6,872	0
Secondary	302	926	4

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 7.2	Width: 20.2	32.0 (21.5 - 46)	27.3 (27.3 - 27.3)
Depth: 0.53	Height: 0.7	1.4 (1.4 - 1.4)	1.5 (1.5 - 1.5)

W:D ratio: 28.9

Entrenchment (ACW:FPW ratio): 1.7

Stream Flow Type: MF

Habitat Units/100m (total channel length): 4.9

Average Unit Gradient: 1.9%

Habitat Units/100m (primary channel length): 7.2

Water temperature (°C): 4.0 - 4.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D30	C50

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):	124	19.1
Volume (m ³):	116	17.8
Key pieces (>=12m x 0.60m):	2	0.3

OREGON DEPARTMENT OF FISH AND WILDLIFE

NF ROCK LOWER POST-TX (N103)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

2/12/2002

REACH		T4N-R6W-S16SW					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
DRY CHANNEL	1	13	1.5	0.00	20	0	10	20	20	30	20	0
POOL-BACKWATER	1	3	2.2	0.40	6	0	30	60	5	5	0	0
POOL-DAMMED	2	70	18.1	1.55	1,311	0	10	30	40	15	5	0
POOL-LATERAL SCOUR	7	142	8.9	1.01	1,272	0	2	11	45	20	16	6
POOL-PLUNGE	2	20	6.0	0.90	118	0	0	5	33	25	18	20
POOL-STRAIGHT SCOUR	5	142	9.5	0.90	1,565	0	1	13	55	18	12	1
PUDDLED UNIT	3	76	1.9	0.23	142	0	13	45	23	13	5	0
RAPID/BEDROCK	1	23	7.4	0.40	167	0	0	5	55	15	10	15
RAPID/BOULDERS	1	20	5.4	0.40	106	0	0	10	25	30	35	0
RIFFLE	17	393	6.3	0.29	2,808	0	1	8	61	21	6	4
RIFFLE W/ POCKETS	2	49	5.4	0.35	261	0	0	10	65	18	8	0
STEP/LOG	5	4	8.0	0.19	22	0	3	27	23	13	28	6
Total:	47	953	7.2	0.53	7,798	0	Avg: 3	15	46	19	12	4

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	3	72	12.8	1.17	1,317	16.89%	0	0.0
Scour Pools	14	304	8.7	0.96	2,955	37.89%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	19	442	6.2	0.29	3,068	39.35%	0	0.0
Rapids	2	42	6.4	0.40	274	3.51%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	5	4	8.0	0.19	22	0.28%	0	0.0
Dry	4	89	1.8	0.18	162	2.08%	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:	17	17.8	26.1
Pools >=1m deep:	8	8.4	12.3
Complex pools (LWD pieces>=3):	7	7.3	10.8
Pool frequency (channel widths/pool):	2.8		
Residual pool depth (avg):	0.80		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 103 NF ROCK LOWER POST-TX (N103)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	01	27.4		T = 4.0
2	RR	01	50	HS	
6	SL	01	75.8	HS	H = .8
8	RI	02	106.3	SS/	
9	RI	01	144.4	HS	
15	SP	00	174.3	HS	SCOUR FROM HS
16	RI	01	187.3	BV	
21	LP	01	252.9	SS/	
26	SL	00	334	HS, BV	H = .7
28	SL	01	384.5	HS, BV	H = .9
31	RI	01	467.7	HS	
39	SL	02	533.6		H = .9
43	LP	00	573.4	HS	
46	SL	00	627	HS, BV	H = .8