

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

STREAM: Little North Fork Nehalem River (N124)
BASIN: Nehalem River
SURVEY TYPE: Post-Tx
DATE: February 20, 2002
SURVEY CREW: Sean Allen, Rachel Werner
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 25.0 km²
USGS MAPS: Saddle Mountain
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Little North Fork Nehalem River habitat survey extended 541 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 5.7 (range: 4 - 10). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.1 percent. Scour pools (67%) and riffles (29%) dominated stream habitat. Gravel (42%) and cobble (29%) dominated stream substrate. Wood volume was moderate at 20.1 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

T5N-R8W-S29SW

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	5.7	VWI Range:	4 - 10

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	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	541	4,305	0
Secondary	86	120	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.0	Width: 10.2	25.3 (18.3 - 34.5)	26.4 (20 - 35)
Depth: 0.62	Height: 0.6	1.3 (1.2 - 1.3)	1.4 (1.3 - 1.4)

W:D ratio: 16.3
Stream Flow Type: MF
Average Unit Gradient: 1.0%
Water temperature (°C): 6.0 - 6.0

Entrenchment (ACW:FPW ratio): 2.5
Habitat Units/100m (total channel length): 4.8
Habitat Units/100m (primary channel length): 5.5

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):	79	14.6
Volume (m ³):	109	20.1
Key pieces (>=12m x 0.60m):	12	2.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

L NF NEHALEM POST-TX (N-124)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

2/20/2002

REACH		T5N-R8W-S29SW					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	4	18	4.0	0.38	66	0	15	39	23	23	1	0	
POOL-ISOLATED	2	13	1.5	0.30	16	0	30	65	5	0	0	0	
POOL-LATERAL SCOUR	13	325	8.1	0.96	2,769	0	1	8	48	31	6	5	
POOL-STRAIGHT SCOUR	2	31	6.7	0.90	195	0	1	7	55	28	8	3	
PUDDLED UNIT	1	38	0.6	0.30	23	0	20	50	30	0	0	0	
RAPID/BOULDERS	1	21	3.7	0.20	78	0	0	0	30	30	20	20	
RIFFLE	5	103	4.6	0.20	648	0	0	4	49	42	5	0	
RIFFLE W/ POCKETS	2	78	7.9	0.28	630	0	0	3	60	38	0	0	
Total:	30	627	6.0	0.62	4,425	0	Avg: 5	16	42	29	5	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	6	31	3.1	0.35	82	1.86%	0	0.0	
Scour Pools	15	356	7.9	0.95	2,964	66.98%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	181	5.6	0.22	1,278	28.89%	0	0.0	
Rapids	1	21	3.7	0.20	78	1.76%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	1	38	0.6	0.30	23	0.52%	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:	21	33.5	38.8
Pools >=1m deep:	7	11.2	12.9
Complex pools (LWD pieces>=3):	7	11.2	12.9
Pool frequency (channel widths/pool):	2.9		
Residual pool depth (avg):	0.80		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 124 L NF NEHALEM POST-TX (N-124)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	01	30.8	HS	SITE #3
2	BW	10	30.8		UNDER HS
5	BW	10	64.2	HS, BV	
7	SP	00	92.2	HS	SITE #6
12	RP	00	178	HS	
13	LP	00	210.5		SITE #7
14	LP	00	236.8	HS	SITE #8
15	RP	00	281.3	SS/	
19	LP	01	389.5	TJ/	
27	BW	10	480.8	SS/	
29	LP	01	540.9	BV, /TJ	