

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

STREAM: Northrup Creek Lower (N-173)
BASIN: Nehalem River
SURVEY TYPE: Post-Tx
DATE: July 7, 2003
SURVEY CREW: Trevor Diemer, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 29.6 km²
USGS MAPS: Nicolai Mtn.
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Northrup Creek habitat survey extended 540 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.8 (range: 5.0-10.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.5 percent. Scour pools (74%) and riffles (18%) dominated stream habitat. Gravel (51%) dominated stream substrate. Wood volume was very high at 38.6 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

OREGON DEPARTMENT OF FISH AND WILDLIFE NORTHRUP CREEK LOWER POST-TX (N-173)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/7/03

REACH 1		T06N-R06W-S08SW					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	Cbl	Bldr	Bdrk	
GLIDE	1	17	6.3	0.40	106	1	5	15	35	30	15	0	
POOL-BACKWATER	3	9	3.3	0.30	31	0	18	28	52	2	0	0	
POOL-LATERAL SCOUR	17	355	5.9	0.87	2,058	6	14	28	43	12	1	3	
RIFFLE	12	163	2.9	0.18	487	0	2	10	62	26	0	1	
STEP/COBBLE	3	12	6.1	0.10	74	0	0	5	57	38	0	0	
STEP/LOG	1	3	7.8	0.10	24	0	0	34	41	24	0	0	
Total:	37	559	4.8	0.51	2,781	7	Avg 9	20	51	18	1	1	

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		19
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	3	9	3.3	0.30	31	1.11%	0	0.0	
Scour Pools	17	355	5.9	0.87	2,058	74.00%	6	0.3	
Glides	1	17	6.3	0.40	106	3.82%	1	0.9	
Riffles	12	163	2.9	0.18	487	17.52%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	4	15	6.5	0.10	99	3.55%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	20	35.8
Pools >=1m deep:	5	8.9
Complex pools (LWD pieces>=3):	6	10.7
Pool frequency (channel widths/pool):	3.6	
Residual pool depth (avg):	0.70	

STREAM SUMMARY

NORTHRUP CREEK LOWER POST-TX (N-173)

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					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
37	559	4.8	0.51	2,781	9	20	51	18	1	1	7

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	31	1.11%
Scour Pools	2,058	74.00%
Glides	106	3.82%
Riffles	487	17.52%
Rapids	0	0.00%
Cascades	0	0.00%
Step/Falls	99	3.55%
Dry	0	0.00%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	183
Total conifers/1000 ft	671
Total conifers >20" dbh/1000 ft	244
Total conifers >35" dbh/1000 ft	203

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	0.3	0.0	2.3	0.0	2.7
15-30cm	0.3	0.3	1.0	0.0	0.7	0.0	2.0	0.3
30-50cm	0.7	0.0	2.0	0.0	2.3	0.0	5.0	0.0
50-90cm	0.3	0.0	0.3	0.0	0.0	0.0	0.7	0.0
>90cm	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0
Total/100m2	1.3	0.3	6.7	0.3	3.0	2.3	3.7	1.0

Canopy closure and ground cover

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	26	58	61
Shrub cover	5	9	4
Grass/forb cover	72	47	38

Predominant landform in each zone

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	0	17	17
High terrace	100	83	83
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 (%)	0	8	12

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
12	LF	1	HT	0	0	0	95	Conifer							10T 0464945
								Hardwood							5095791
12	LF	2	HT	0	0	0	95	Conifer							
								Hardwood							
12	LF	3	HT	0	0	0	95	Conifer							
								Hardwood							
12	RT	1	HT	0	25	10	90	Conifer							
								Hardwood		1					
12	RT	2	HT	0	95	20	10	Conifer			1	3			
								Hardwood							
12	RT	3	HT	0	95	0	0	Conifer			1	3			
								Hardwood							
19	RT	3	HT	10	90	0	10	Conifer				1			
								Hardwood							
19	LF	2	HT	0	0	0	100	Conifer							
								Hardwood							
19	LF	3	HT	0	0	0	100	Conifer							
								Hardwood							
19	RT	1	HT	0	70	10	20	Conifer			1	1			
								Hardwood							
19	RT	2	HT	0	90	0	10	Conifer			1	2			
								Hardwood							
19	LF	1	HT	0	0	0	100	Conifer							10T 0464979
								Hardwood							5095855
28	RT	3	HT	0	90	5	5	Conifer				2			6 VINE MAPLE
								Hardwood	6						
28	LF	1	HT	0	60	10	60	Conifer				1			
								Hardwood							
28	RT	2	HT	0	80	5	5	Conifer					1	10	10 VINE MAPLE
								Hardwood							
28	RT	1	HT	0	0	0	65	Conifer					1		
								Hardwood							
28	LF	2	HS	45	85	30	60	Conifer			1	1			
								Hardwood	1						
28	LF	3	HS	60	90	20	20	Conifer			1	1			
								Hardwood	1						

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 1-NC SITE ID: 173 NORTHRUP CREEK LOWER POST-T

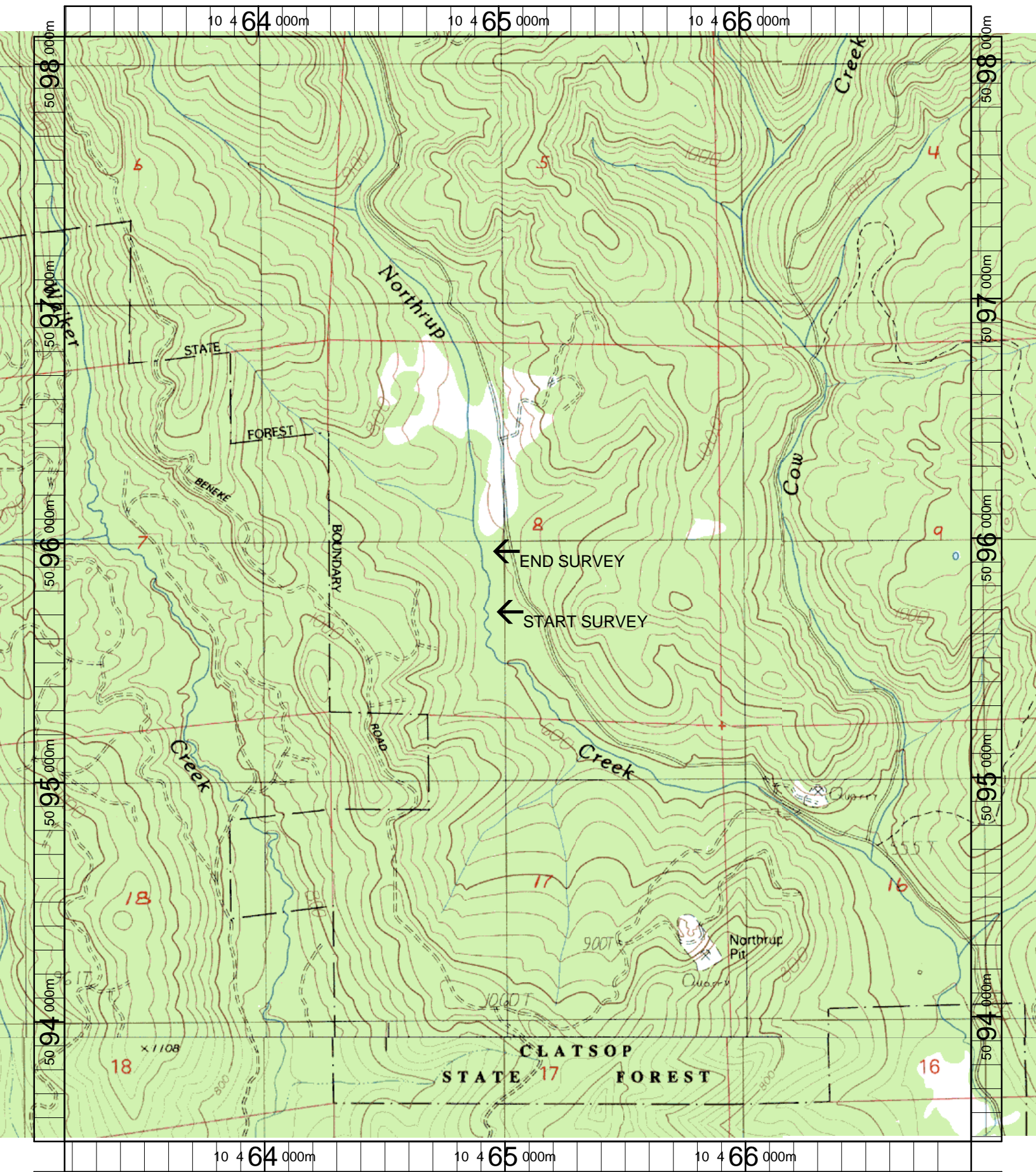
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	22.2		10T 0464931 5095701	13.5 DEG C
2	SL	00	25.3	HS	H=.25M	
3	LP	01	46.9	HS		
4	BW	10	46.9	HS		
6	LP	01	67.8	HS		
7	BW	10	67.8	HS		
8	LP	01	74.8	HS		
9	BW	10	74.8	HS		
10	LP	00	98.6	HS		
11	RI	00	105.7	WL/HS		
12	LP	00	123.1	HS	RIP T. #1 10T 0464942 509	13 DEG C @ 1000 RIP/MET
13	SC	00	123.8		H=.20M	
18	RI	00	223.7	-BV		BEAVER SLIDES
19	LP	00	255.4	HS	RIP T. #2 10T 0464979 509	COHO & TROUT FRI PRESEN
20	RI	00	266.8	S		MET/RIP 13.0 DEG C @ 10:15
21	LP	00	280.5	HS		
23	LP	01	314.2	BV//TJ, HS		SM TRIB W/ BEAVER SLIDES
24	RI	11	314.2	BV HS		BEAVER SLIDES
25	RI	00	340.4	HS		
28	RI	00	383.1		RIP T. #3 10T 0464888 509	RIP/MET 14 DEG C @ 10:45
29	LP	00	398.1	BV		BEAVER DAM BLOWN

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 1-NC SITE ID: 173 NORTHRUP CREEK LOWER POST-T

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
30	RI	00	410.2	-IE		
32	SC	00	434.1		H=.25M	
33	GL	00	451.1	-IL		
35	LP	00	505.3			SOME LARGE TROUT 8"



Name: NICOLAI MT
 Date: 6/11/2003
 Scale: 1 inch equals 1666 feet

Location: 10 465062 E 5095801 N
 Caption: NORTHRUP CREEK LOWER RESTORATION SITE -
 NEHALEM BASIN