

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

STREAM: Nelson Creek (MC-210)
BASIN: Siuslaw River
SURVEY TYPE: Post-Tx
DATE: January 20, 2005
SURVEY CREW: Brian Bangs, Jeremy Romer
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 38.6 km²
USGS MAPS: Walton
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Nelson Creek habitat survey extended 451 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.5 (range: 2.0-10.0). Land use for the reach was large (30-50 cm dbh) trees. The average unit gradient was 1.3 percent. Riffles (62%) and scour pools (34%) dominated stream habitat. Gravel (50%) and sand (23%) dominated stream substrate. Wood volume was moderate at 28.2 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.

REACH 1

T17S-R08W-S01SE

REACH 1

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.5	VWI Range:	2 - 10

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 Channel	451	2,129	0
Secondary Channel	28	19	1
Off-Channel Units	41	52	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 5
Width: 3.9	Width: 8.1	12.5 (8.8 - 23.3)	44.2 (30 - 60)
Depth: 0.40	Height: 0.4	0.8 (0.7 - 1)	1.2 (1.1 - 1.3)

W:D ratio: 20.0

Entrenchment (ACW:FPW ratio): 1.5

Stream Flow Type: MF

Habitat Units/100m (total channel length): 7.9

Average Unit Gradient: 1.3%

Habitat Units/100m (primary channel length): 9.1

Water temperature (°C): 8.0 - 8.0

Riparian, Bank, and Wood Summary

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

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):	123	27.3
Volume (m ³):	127	28.2
Key pieces (>=12m x 0.60m):	1	0.2

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

1/20/2005

REACH 1		T17S-R08W-S01SE					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
POOL-BACKWATER	3	15	2.0	0.27	32	0	56	43	0	0	0	0
POOL-ISOLATED	2	6	2.0	0.15	12	0	27	32	27	15	0	0
POOL-LATERAL SCOUR	13	141	5.0	0.75	687	0	9	25	50	7	3	6
POOL-STRAIGHT SCOUR	2	12	5.5	0.68	60	0	0	25	60	15	0	0
PUDDLED UNIT	1	10	0.5	0.10	5	0	40	40	20	0	0	0
RIFFLE	18	328	3.8	0.21	1,354	0	7	16	63	11	3	0
STEP/COBBLE	1	8	6.5	0.20	49	0	0	5	60	30	5	0
STEP/LOG	1	2	0.3	0.05	0	0	20	40	40	0	0	0
Total:	41	520	3.9	0.40	2,200	0	Avg: 13	23	50	9	2	2

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	5	21	2.0	0.22	44	2.00%	0	0.0	
Scour Pools	15	153	5.0	0.74	747	33.96%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	18	328	3.8	0.21	1,354	61.56%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	9	3.4	0.13	50	2.27%	0	0.0	
Dry	1	10	0.5	0.10	5	0.22%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

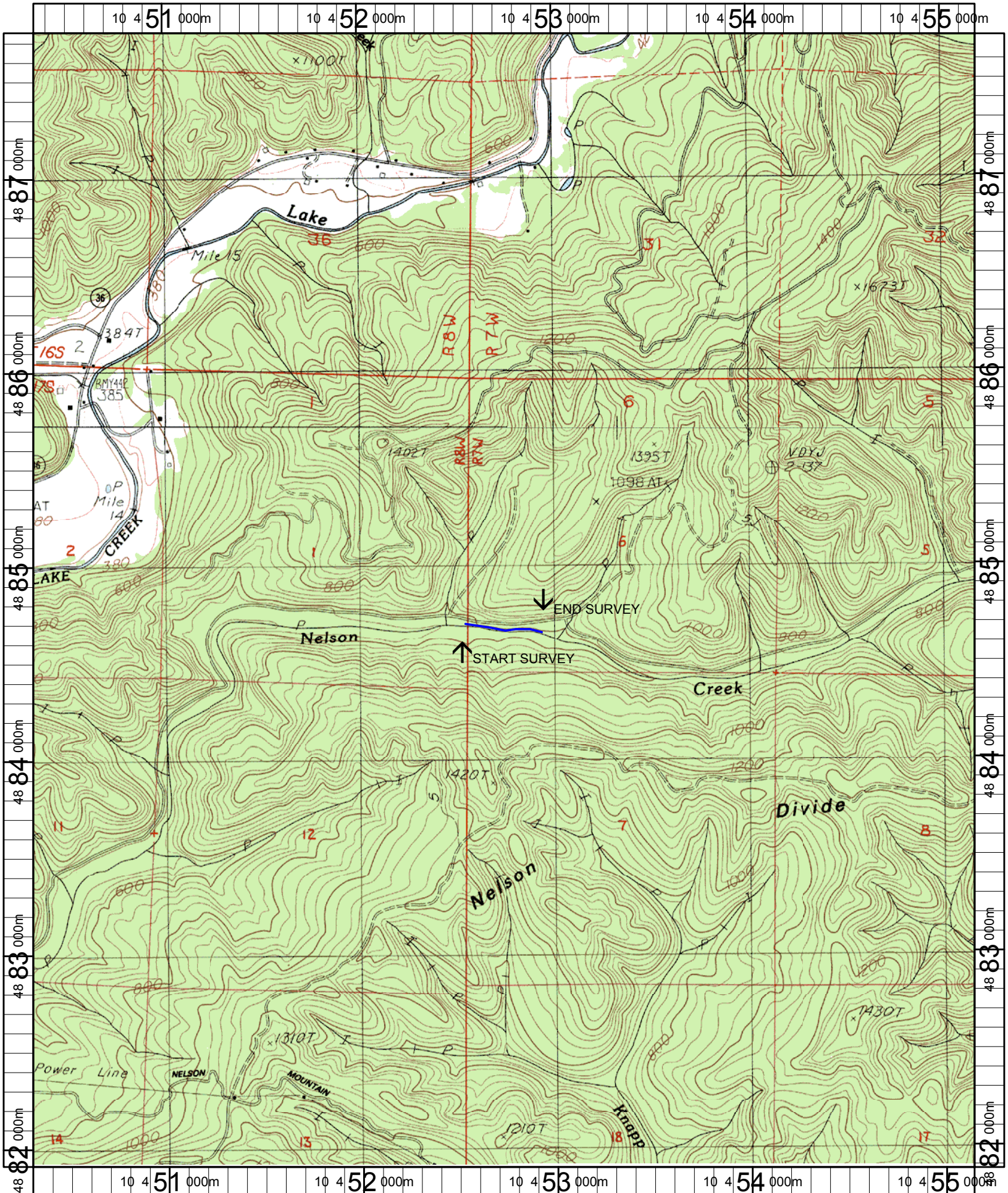
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	20	38.4	44.4
Pools >=1m deep:	2	3.8	4.4
Complex pools (LWD pieces>=3):	7	13.5	15.5
Pool frequency (channel widths/pool):	3.2		
Residual pool depth (avg):	0.49		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **2-MC** SITE ID: **210** NELSON CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	11	/SS	CT S D15	
6	LP	00	23.6		CT S D15	
7	RI	01	98.6	/TJ	COHO CARCASS & REDDS	
9	SL	11	98.6		H=0.9	
10	LP	00	109.8		LIVE COHO	
18	RI	01	229.7		CA S D15	
21	LP	00	244.7	HS	COHO FRY	
23	LP	00	271.9		REDDS	
24	RI	01	291.7	HS		
29	RI	00	328.7	CS, BV	CH, S, D15	
30	LP	00	339.5	HS		
35	RI	00	392.8		CA, S, D15	
36	LP	00	402.2	HS		
40	RI	00	441.4	BV		
41	LP	00	450.6		CA, S D30	



Name: WALTON
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 452740 E 4884817 N
 Caption: NELSON CREEK RESTORATION SITE - SIUSLAW BASIN