

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

STREAM: North Slough Creek (MS-294)  
BASIN: Coos Bay  
SURVEY TYPE: Reference  
DATE: July 13, 2005  
SURVEY CREW: Kevin Cellura, Eric Himmelreich  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 28.4 km<sup>2</sup>  
USGS MAPS: Lakeside  
ECOREGION: Coast Range Coastal Lowlands

**GENERAL DESCRIPTION:**

The North Slough Creek habitat survey extended 643 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 6.2 (range: 3.2-11.0). Land use for the reach was young (3-15 cm dbh) trees. The average unit gradient was 2.5 percent. Riffles (59%) dominated stream habitat. Sand (30%), gravel (28%) and bedrock (24%) dominated stream substrate. Wood volume was very low at 4.4 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1      T24S-R12W-S08NE      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	6.2	VWI Range:	3.2 - 11

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	643	872	0
Secondary Channel	0	0	0
Off-Channel Units	20	23	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 1.5	Width: 3.1	4.1 ( 2.7 - 5.4 )	4.5 ( 2.8 - 5.7 )
Depth: 0.11	Height: 0.3	0.6 ( 0.4 - 0.9 )	0.9 ( 0.5 - 1.2 )

W:D ratio: 10.9      Entrenchment (ACW:FPW ratio): 1.3  
 Stream Flow Type: LF      Habitat Units/100m (total channel length): 6.3  
 Average Unit Gradient: 2.5%      Habitat Units/100m (primary channel length): 6.5  
 Water temperature (°C): -

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	
Riparian Vegetation:	G	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 75%
Undercut Banks:	24%	Range: 43 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	48	7.5
Volume (m <sup>3</sup> ):	28	4.4
Key pieces (>=12m x 0.60m):	0	0.0

**OREGON DEPT OF FISH AND WILDLIFE      NORTH SLOUGH CREEK REFERENCE      (3-MS, 294)**

**HABITAT INVENTORY**

Report Date: 4/26/2006

Survey Date:

7/13/2005

<b>REACH 1</b>		<b>T24S-R12W-S08NE</b>					<b>REACH 1</b>					
<b>HABITAT DETAIL</b>												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	5	70	2.1	0.03	123	5	1	3	4	2	2	88
CASCADE/BOULDERS	3	29	0.7	0.05	27	0	12	30	40	18	0	0
GLIDE	1	9	1.5	0.10	14	0	20	70	10	0	0	0
POOL-BACKWATER	1	4	3.7	0.20	13	0	60	40	0	0	0	0
POOL-LATERAL SCOUR	3	24	1.4	0.42	35	0	27	53	20	0	0	0
POOL-PLUNGE	1	2	5.5	0.48	13	0	20	60	10	0	0	10
POOL-STRAIGHT SCOUR	1	4	2.3	0.42	9	0	30	60	10	0	0	0
RAPID/BEDROCK	4	83	1.0	0.04	78	10	1	5	6	6	6	75
RAPID/BOULDERS	3	38	1.2	0.06	40	0	8	37	43	12	0	0
RIFFLE	16	368	1.4	0.09	498	16	8	36	42	7	3	4
RIFFLE W/ POCKETS	1	24	1.4	0.09	33	0	5	25	50	20	0	0
STEP/BEDROCK	1	3	1.3	0.10	4	0	0	0	0	5	5	90
STEP/COBBLE	1	4	1.8	0.05	6	0	0	35	65	0	0	0
STEP/LOG	1	0	1.0	0.02	0	0	0	0	0	10	10	80
<b>Total:</b>	<b>42</b>	<b>663</b>	<b>1.5</b>	<b>0.11</b>	<b>895</b>	<b>31</b>	<b>Avg: 10</b>	<b>30</b>	<b>28</b>	<b>6</b>	<b>2</b>	<b>24</b>

<b>HABITAT SUMMARY</b>									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	1	4	3.7	0.20	13	1.49%	0	0.0	
Scour Pools	5	31	2.4	0.43	57	6.39%	0	0.0	
Glides	1	9	1.5	0.10	14	1.58%	0	0.0	
Riffles	17	392	1.4	0.09	531	59.35%	16	3.0	
Rapids	7	121	1.1	0.05	118	13.16%	10	8.5	
Cascades	8	99	1.6	0.04	151	16.85%	5	3.3	
Step/Falls	3	7	1.4	0.06	11	1.18%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

<b>POOL SUMMARY</b>			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	6	9.1	9.3
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	1.5	1.6
Pool frequency (channel widths/pool):	35.6		
Residual pool depth (avg):	0.40		

Survey Date 7/13/2005  
Report Date: 4/26/2006

**RIPARIAN ZONE  
VEGETATION SUMMARY**

REACH 1

**Summary of Riparian Zone (0-30m) 3 transects**

Total hardwoods/1000	528
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	0

**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	0.7	0.0	2.0	0.0	1.0	0.0	3.7
15-30cm	0.0	0.7	0.0	0.0	0.0	0.3	0.0	1.0
30-50cm	0.0	1.3	0.3	1.0	0.0	1.3	0.3	3.7
50-90cm	0.0	0.0	0.3	0.3	0.3	0.0	0.7	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	2.7	0.7	3.3	0.3	2.7	0.3	2.9

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	55		62		59	
Shrub cover	61		46		49	
Grass/forb cover	33		47		43	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		83		83	
High terrace	67		17		17	
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 (%)	16		25		30	

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	528
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	0

**Average number of trees in a 5-m wide band**

Diameter class (cm)	Zones 1-3 <u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	3.7
15-30cm	0.0	1.0
30-50cm	0.3	3.7
50-90cm	0.7	0.3
>90cm	0.0	0.0

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**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	5	10	10	85	Conifer							ESTIMATED B/C OF MANY NETTLES 3D 0407419 / 4817696
								Hardwood							
12	LF	2	HT	5	0	10	85	Conifer							ESTIMATED, NETTLES/SAL MONBERRY
								Hardwood							
12	LF	3	HT	5	0	10	85	Conifer							0407497 / 4817743
								Hardwood							
12	RT	1	HS	20	40	60	40	Conifer							3D 0407614 / 4817760
								Hardwood							
12	RT	2	HS	20	80	60	40	Conifer							ESTIMATED, NETTLES/SAL MONBERRY
								Hardwood							
12	RT	3	HS	40	80	60	35	Conifer							0407497 / 4817743
								Hardwood							
18	LF	1	HT	5	90	80	15	Conifer							ESTIMATED, NETTLES/SAL MONBERRY
								Hardwood							
18	RT	3	HS	30	70	80	15	Conifer							0407497 / 4817743
								Hardwood							
18	RT	2	HS	25	80	80	15	Conifer				1	1		0407497 / 4817743
								Hardwood							
18	LF	2	HS	30	70	70	20	Conifer							0407497 / 4817743
								Hardwood							
18	RT	1	HT	5	70	80	15	Conifer							0407497 / 4817743
								Hardwood	1		1				
18	LF	3	HS	30	80	70	20	Conifer					1		0407497 / 4817743
								Hardwood							
25	LF	1	HS	55	35	75	10	Conifer							0407497 / 4817743
								Hardwood	1	2					
25	LF	2	HS	30	80	15	70	Conifer							0407497 / 4817743
								Hardwood	5		1	1			
25	LF	3	HS	35	65	35	55	Conifer							0407497 / 4817743
								Hardwood	1		2				
25	RT	1	HT	5	85	60	35	Conifer							0407497 / 4817743
								Hardwood							
25	RT	2	HS	40	60	40	50	Conifer							0407497 / 4817743
								Hardwood	1						
25	RT	3	HS	40	60	40	50	Conifer							0407497 / 4817743
								Hardwood	2	1					

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS**      SITE ID: **294**      NORTH SLOUGH CREEK REFERENC

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	BW	10	30			FRY
3	RP	00	53.5			FRY
4	LP	00	62.9			FRY
7	RI	01	89.4	/TJ		
8	CB	11	89.4		TRIB, ACH 1.4M	TRIB 1, 0407364 / 4817721
11	LP	00	131.8		RIPARIAN 1	
17	RB	00	248.2	SS/		
18	GL	00	257.6	WL		DEER TRACKS
20	RI	00	308.6	/SS		
21	RI	00	333.6	BV	RIPARIAN 2	
24	RI	00	373	BV		
28	RR	00	449.5	BV		BLOWN OUT DAM
29	CB	00	467.5	BV		
30	RI	01	493.5	/TJ, SS/		
31	CB	11	493.5		TRIB 2, ACW 0.7M	TRIB 2, 3D 0407694 / 4817720
32	RI	00	509.5			FRY
34	PP	00	520.9			FISH, TROUT
36	RI	00	542.2			FISH
37	CR	00	561.2	SS/		
38	CR	01	591.2	/TJ		0407780 / 4817759
39	CR	11	591.2		TRIB 3, ACW 1.3M	TRIB 3

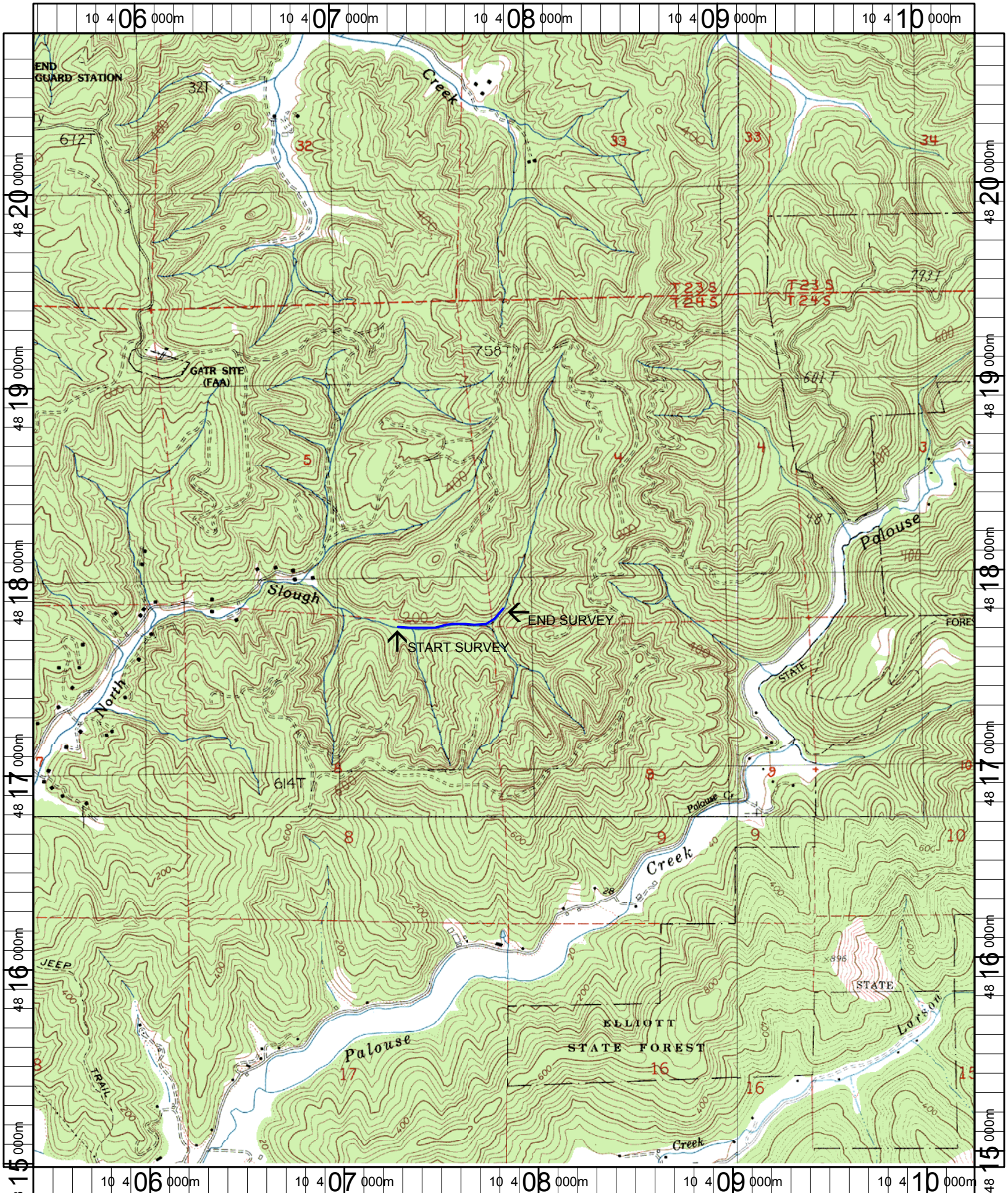
# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 3-MS      SITE ID: 294      NORTH SLOUGH CREEK REFERENC

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
42	RB	00	642.9			0407823 / 4817798





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

Location: 10 407861 E 4817875 N  
 Caption: NORTH SLOUGH CREEK REFERENCE SITE - COOS BASIN