

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

STREAM: North Slough Creek Tributary (MS-293)
BASIN: Coos Bay
SURVEY TYPE: Post-Tx
DATE: July 12, 2005
SURVEY CREW: Kevin Cellura, Eric Himmelreich
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 1.2 km²
USGS MAPS: Lakeside
ECOREGION: Coast Range Coastal Lowlands

GENERAL DESCRIPTION:

The North Slough Creek Tributary habitat survey extended 517 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 7.0 (range: 3.0-12.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.2 percent. Riffles (65%) and scour pools (20%) dominated stream habitat. Gravel (44%) and sand (34%) dominated stream substrate. Wood volume was low at 12.5 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

T24S-R12W-S05SE

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	7.0	VWI Range:	3 - 12

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	517	687	0
Secondary Channel	0	0	0
Off-Channel Units	10	4	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: 2.8	3.6 (2.4 - 4.7)	4.1 (2.5 - 5.6)
Depth: 0.14	Height: 0.3	0.5 (0.4 - 0.8)	1.5 (0.6 - 3.8)

W:D ratio: 10.7

Entrenchment (ACW:FPW ratio): 1.3

Stream Flow Type: LF

Habitat Units/100m (total channel length): 8.3

Average Unit Gradient: 1.2%

Habitat Units/100m (primary channel length): 8.5

Water temperature (°C): 13.0 - 13.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 97%
Undercut Banks:	28%	Range: 75 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	80	15.5
Volume (m ³):	64	12.5
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE NORTH SLOUGH CREEK TRIB POST-TX (3-MS, 293)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/12/2005

REACH 1		T24S-R12W-S05SE					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
CASCADE/BEDROCK	1	4	0.4	0.01	2	0	5	5	5	0	0	86
CASCADE/BOULDERS	2	11	0.8	0.03	8	0	0	15	78	8	0	0
GLIDE	2	39	1.5	0.15	53	0	53	38	10	0	0	0
POOL-DAMMED	1	9	2.3	0.30	21	0	50	30	20	0	0	0
POOL-LATERAL SCOUR	8	62	1.5	0.30	91	0	34	40	26	0	0	0
POOL-PLUNGE	2	4	3.1	0.34	12	0	21	47	32	0	0	0
POOL-STRAIGHT SCOUR	3	23	1.6	0.29	37	0	27	40	33	0	0	0
RIFFLE	19	341	1.2	0.06	430	0	12	34	54	0	0	0
RIFFLE W/ POCKETS	1	25	0.9	0.15	23	0	22	44	33	0	0	0
STEP/COBBLE	3	9	1.5	0.03	13	0	3	17	80	0	0	0
STEP/LOG	1	1	4.0	0.02	2	0	22	44	33	0	0	0
STEP/STRUCTURE	1	0	1.2	0.04	0	0	0	50	50	0	0	0
Total:	44	528	1.5	0.14	691	0	Avg: 19	34	44	0	0	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	1	9	2.3	0.30	21	2.99%	0	0.0	
Scour Pools	13	88	1.8	0.30	140	20.29%	0	0.0	
Glides	2	39	1.5	0.15	53	7.62%	0	0.0	
Riffles	20	366	1.2	0.07	452	65.43%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	3	15	0.6	0.02	10	1.39%	0	0.0	
Step/Falls	5	10	1.9	0.03	16	2.27%	0	0.0	
Dry	0	0			0	0.00%	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:	14	26.5	27.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	1.9	1.9
Pool frequency (channel widths/pool):	13.6		
Residual pool depth (avg):	0.26		

Survey Date 7/12/2005
Report Date: 4/26/2006

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	1158
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	0
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	4.0	0.0	0.7	1.0	1.7	1.0	6.3
15-30cm	0.0	0.0	0.7	2.7	1.3	2.7	2.0	5.3
30-50cm	0.0	4.0	0.3	2.0	1.3	1.3	1.7	7.3
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	8.0	1.0	5.3	3.7	5.7	1.6	6.3

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	58	75	85
Shrub cover	30	33	30
Grass/forb cover	53	43	43

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	50	83	100
High terrace	33	0	0
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	17	17	0
Riprap	0	0	0
Surface slope (%)	26	38	63

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	1158
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	0
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	1.0	6.3
15-30cm	2.0	5.3
30-50cm	1.7	7.3
50-90cm	0.0	0.0
>90cm	0.0	0.0

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HABITAT INVENTORY Report Date: 4/27/2006

Survey Date: 7/12/2005

GCG: 3-MS SITE ID: 293

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	
9	RT	1	HS	35	10	0	80	Conifer						
								Hardwood					1	
9	RT	3	HS	70	95	10	50	Conifer					2 1	
								Hardwood					4 4 1	
9	RT	2	RB	10	50	10	75	Conifer						
								Hardwood					3	
9	LF	3	HS	60	90	15	60	Conifer					1 1 1	
								Hardwood						
9	LF	1	RB	0	10	30	65	Conifer					0406984 / 4818348	
								Hardwood						
9	LF	2	HS	20	85	10	50	Conifer						
								Hardwood					5 1	
21	LF	1	HS	65	85	30	30	Conifer					0406980 / 4818450	
								Hardwood					6	
21	LF	2	HS	50	70	0	30	Conifer					2 1	
								Hardwood						
21	LF	3	HS	90	95	5	40	Conifer					2 3	
								Hardwood					1	
21	RT	1	HT	5	80	30	50	Conifer						
								Hardwood					1 1	
21	RT	2	HS	45	85	70	20	Conifer						
								Hardwood					2 1	
21	RT	3	HS	45	75	80	10	Conifer						
								Hardwood					1 2 1	
32	LF	3	HS	60	80	10	60	Conifer						
								Hardwood						
32	RT	3	HS	50	75	60	35	Conifer						
								Hardwood					1 2	
32	RT	1	HS	50	80	30	60	Conifer						
								Hardwood					2 1	
32	LF	2	HS	50	85	80	15	Conifer						
								Hardwood					1 1	
32	LF	1	HT	0	85	60	30	Conifer					0406971 / 4818610	
								Hardwood					9 3	
32	RT	2	HS	50	75	25	70	Conifer						
								Hardwood					2	

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **293** NORTH SLOUGH CREEK TRIB POST-

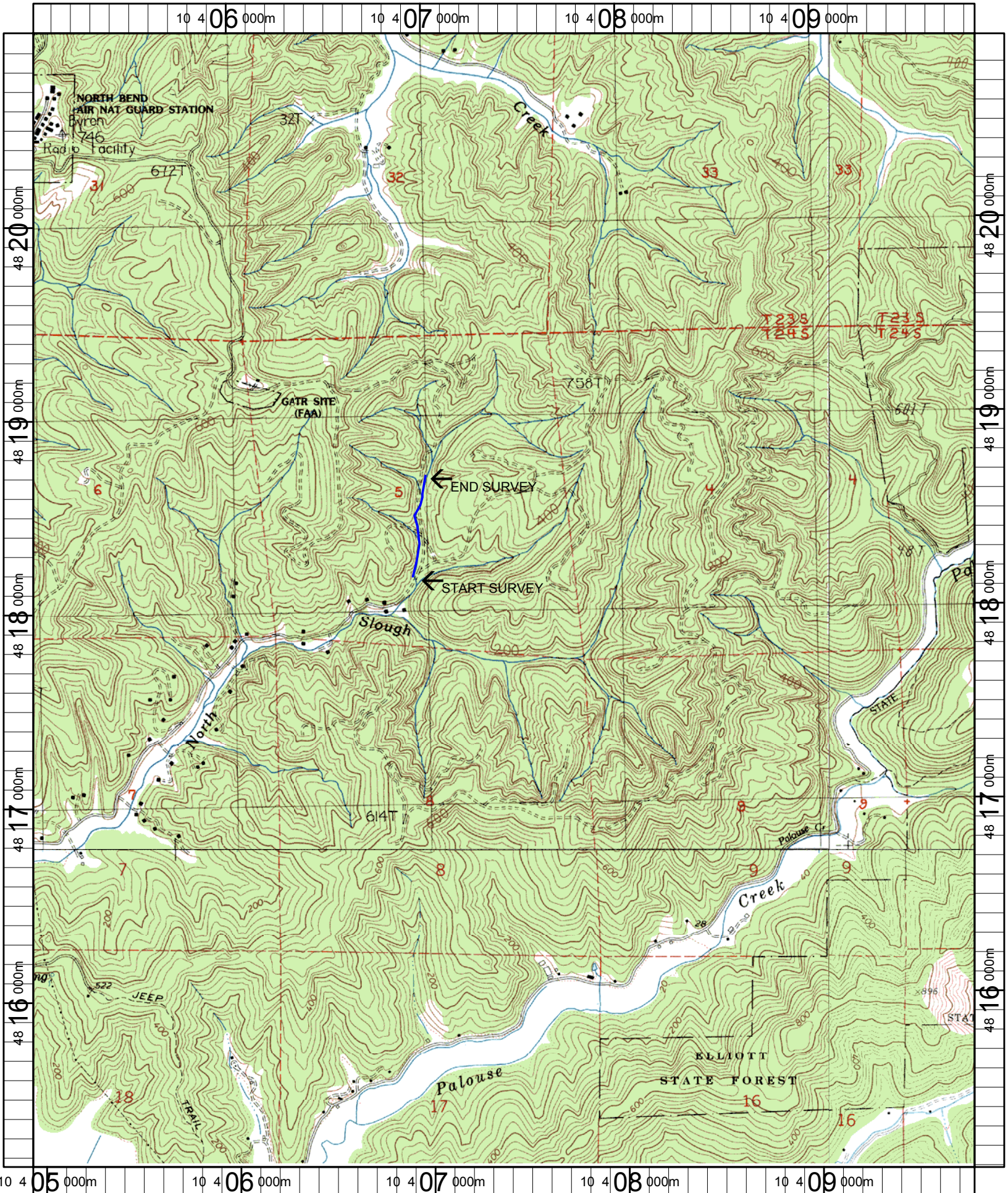
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	7.7			TROUT
2	LP	00	17.1	WL		TRACKS
5	RI	00	64.5	HS		
6	GL	00	78.5			FRY, BULLFROG
7	RI	00	107.5	HS		
8	RI	00	127.5	HS		DUNN'S SALAMANDER
9	RI	00	140	RF, /SS	RIPARIAN 1	FRY
10	RI	00	165	HS		
11	RI	00	193	SS/		
12	LP	00	204.3			FISH
14	LP	01	214.8	TJ/		0406971 / 4818428
15	CR	11	214.8		ACW 0.5M, TEMP 16.5C	HARDPAN
16	RI	00	219.8		TEMP 13C	
21	RP	00	272.2	WL	RIPARIAN 2	TRAIL
22	RI	00	297.2	HS		FISH, FRY
23	RI	00	322.2	HS		FRY
24	RI	00	336.6			FRY
26	RI	00	346.5	HS		
27	LP	00	360	HS		
29	PP	00	365.1	/SS		
30	SL	00	365.6		H=0.4M	

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **293** NORTH SLOUGH CREEK TRIB POST-

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
31	DP	00	374.6	/SS		
38	SP	00	421.7	HS		
39	GL	00	446.7			FRY, TROUT
40	RI	00	460.2	HS		
41	SP	00	467.7			FRY
42	RI	00	494.4	SS/		
43	RI	01	517.4	/TJ	TEMP 13.5C	
44	CB	11	517.4		ACW 0.9M, TEMP 13.5C	TRIB 2



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

Location: 10 407392 E 4818046 N
 Caption: NORTH SLOUGH TRIBUTARY RESTORATION SITE - COOS BASIN