

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

STREAM: Bays Creek (N-3)
BASIN: Nestucca River
SURVEY TYPE: Post-Tx
DATE: February 2, 2004
SURVEY CREW: Jim Andrews, April Waters
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 10.1 km²
USGS MAPS: Blaine
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Bays Creek habitat survey extended 517 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.9 (range: 1.0-2.8). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.0 percent. Riffles (59%) and scour pools (23%) dominated stream habitat. Gravel (46%) and bedrock (32%) dominated stream substrate. Wood volume was very high at 55.8 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

T03S-R09W-S24NE

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	0%
Moderate V-shape	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	1.9	VWI Range:	1 - 2.8

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	517	3,762	0
Secondary	27	30	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 6.1	Width: 11.4	19.6 (10.3 - 30.5)	36.4 (35.5 - 37.2)
Depth: 0.59	Height: 0.7	1.5 (1.1 - 2.2)	1.5 (1.45 - 1.5)

W:D ratio: 17.3

Stream Flow Type: MF

Avg. Unit Gradient: 2.0%

Entrenchment (ACW:FPW ratio): 1.7

Water temp (°C): 8.3 - 8.3

Habitat Units/100m: 5.7

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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	92	17.8
Volume (m ³):	288	55.8
Key pieces (>=10m x 0.60m):	41	7.9

OREGON DEPARTMENT OF FISH AND WILDLIFE

BAYS CREEK POST-TX (N-3)

HABITAT INVENTORY

Report Date: 6/16/2004

Survey Date:

2/2/2004

REACH 1

T03S-R09W-S24NE

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/BOULDERS	4	16	0.7	0.05	12	0	0	6	60	31	3	0
POOL-LATERAL SCOUR	5	87	7.4	1.01	627	0	0	9	58	6	2	24
POOL-STRAIGHT SCOUR	2	32	7.7	0.95	243	0	3	10	63	3	3	20
RAPID/BEDROCK	4	90	7.9	0.58	689	0	0	1	10	8	9	72
RIFFLE	16	318	6.5	0.55	2,219	0	1	5	45	14	3	33
Total:	31	544	6.1	0.59	3,791	0	Avg: 1	6	46	13	3	32

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	0	0			0	0.00%	0	0.0
Scour Pools	7	119	7.5	0.99	870	22.96%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	16	318	6.5	0.55	2,219	58.54%	0	0.0
Rapids	4	90	7.9	0.58	689	18.19%	0	0.0
Cascades	4	16	0.7	0.05	12	0.32%	0	0.0
Step/Falls	0	0			0	0.00%	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:	7	12.9	27
Pools >=1m deep:	4	7.4	
Complex pools (LWD pieces>=3):	3	5.5	
Pool frequency (channel widths/pool):	6.8		
Residual pool depth (avg):	0.48		

STREAM SUMMARY

BAYS CREEK POST-TX (N-3)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
31	544	6.1	0.59	3,791	1	6	46	13	3	32	

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	870	22.96%
Glides	0	0.00%
Riffles	2,219	58.54%
Rapids	689	18.19%
Cascades	12	0.32%
Step/Falls	0	0.00%
Dry	0	0.00%
Culverts	0	0.00%

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **1-NC** SITE ID: **3** **BAYS CREEK POST-TX (N-3)**

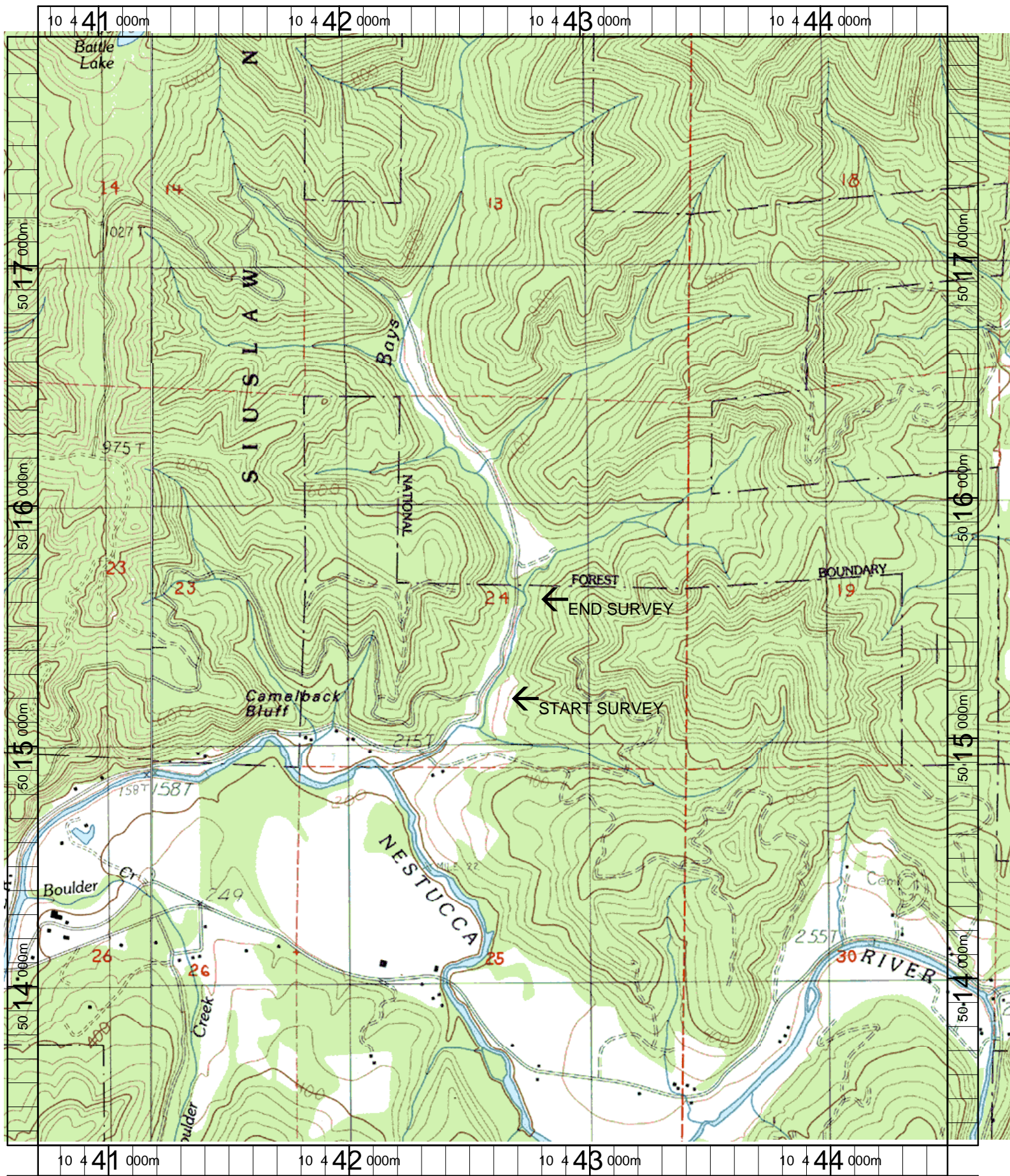
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	SP	01	39	TJ/		
3	CB	11	39		ACW=1.9M, T=8.1C	
4	CB	11	39	CE		
7	RI	00	113.2	SS/		
9	LP	01	147.4	/TJ		
10	CB	11	147.4		ACW=.8M	
14	RI	01	233.1	TJ,SS/		
16	RI	00	252.1	/SS		
17	RI	00	269.1		HATCHERY MALE STHD	
19	RI	00	309.1	HS, DJ		
20	RI	00	334.1	HS, /SS		
21	RI	00	359.1	HS		
22	RI	01	371.5	/TJ	SG=6M	
23	RI	11	371.5		ACW=1.4M, T=8.5C	
24	LP	00	389.6	HS		
25	RI	00	414.1	HS, WL	LOGS-HS, ELK TRAIL	
26	RI	00	438.4	HS	SALMONID BONES	
27	SP	00	455.5	HS	SG=8M	
28	RI	00	470.3	HS		
29	LP	00	498.6	HS	LOGS OUTSIDE ACW	
30	RI	01	517	/TJ, HS	EOS	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 3 BAYS CREEK POST-TX (N-3)

<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	RI	11	517		ACW=2.5, T=8.5C	



Name: BLAINE
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 442613 E 5015633 N
 Caption: BAYS CREEK RESTORATION SITE - NESTUCCA BASIN