

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

STREAM: Swab Creek (NC-368)
BASIN: Nestucca River
SURVEY TYPE: Post-Tx
DATE: March 18, 2008
SURVEY CREW: Ryan Jacobsen, Matt Strickland
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 1.7 km²
USGS MAPS: Beaver
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Swab Creek habitat survey extended 1,389 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 8.7 (range: 5-20). Land use for the reach was young trees (3-15cm dbh) and second growth timber (15-30cm dbh). The average unit gradient was 3.1 percent. Riffles (75%) dominated stream habitat. Gravel (43%) and sand (25%) dominated stream substrate. Wood volume was 11.0m³/100m.

COMMENTS:

One potential natural barrier to upstream fish migration, a boulder cascade, was noted 653m into the surveyed length.

The crew noted one habitat structure and one active landslide during the survey.

Coho fry were observed during the survey.

**OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY**

**SWAB CREEK
GCG: 1-NC SITE ID: 368**

Survey Date: 3/18/2008

Report Date: 5/6/2008

T03S-R09W-S22SW

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	8.7	VWI Range:	5 - 20

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	1,389	3,527	0
Secondary	111	142	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 5
Width: 2.4	Width: 3.4	6.3 (3.9 - 13)	9.0 (6 - 15)
Depth: 0.36	Height: 0.3	0.7 (0.6 - 0.7)	1.6 (1.3 - 2.5)

W:D ratio: 10.3

Stream Flow Type: MF

Average Unit Gradient: 3.1%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 2.0

Habitat Units/100m (total channel length): 7.3

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

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D30	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):	156	11.2
Volume (m ³):	153	11.0
Key pieces (>=12m x 0.60m):	2	0.1

OREGON DEPARTMENT OF FISH AND WILDLIFE

SWAB CREEK

HABITAT INVENTORY

GCG: 1-NC SITE ID: 368

Survey Date: 3/18/2008

Report Date: 5/6/2008

T03S-R09W-S22SW

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	63	1.9	0.07	190	0	8	19	33	19	10	12
POOL-BACKWATER	8	22	1.6	0.41	40	0	35	38	26	1	0	0
POOL-DAMMED	1	3	2.5	0.50	8	0	0	30	60	10	0	0
POOL-LATERAL SCOUR	30	137	2.6	0.55	347	0	10	24	44	17	0	5
POOL-PLUNGE	7	21	3.3	0.64	66	0	6	20	35	15	3	20
POOL-STRAIGHT SCOUR	1	5	2.2	0.70	10	0	0	10	50	20	0	20
RAPID/BOULDERS	4	84	1.8	0.23	207	0	9	23	48	15	3	3
RIFFLE	45	1,136	2.3	0.25	2,710	0	3	24	46	24	1	3
RIFFLE W/ POCKETS	1	22	3.1	0.25	68	0	0	11	44	33	0	11
STEP/COBBLE	1	1	3.0	0.20	4	0	0	44	44	11	0	0
STEP/LOG	8	7	2.5	0.16	18	0	8	27	48	18	0	0
Total:	110	1,500	2.4	0.36	3,668	0	Avg: 8	25	43	19	1	4

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	9	25	1.7	0.42	47	1.29%	0	0.0
Scour Pools	38	162	2.7	0.57	423	11.54%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	46	1,158	2.3	0.25	2,778	75.73%	0	0.0
Rapids	4	84	1.8	0.23	207	5.65%	0	0.0
Cascades	4	63	1.9	0.07	190	5.19%	0	0.0
Step/Falls	9	8	2.6	0.16	22	0.61%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

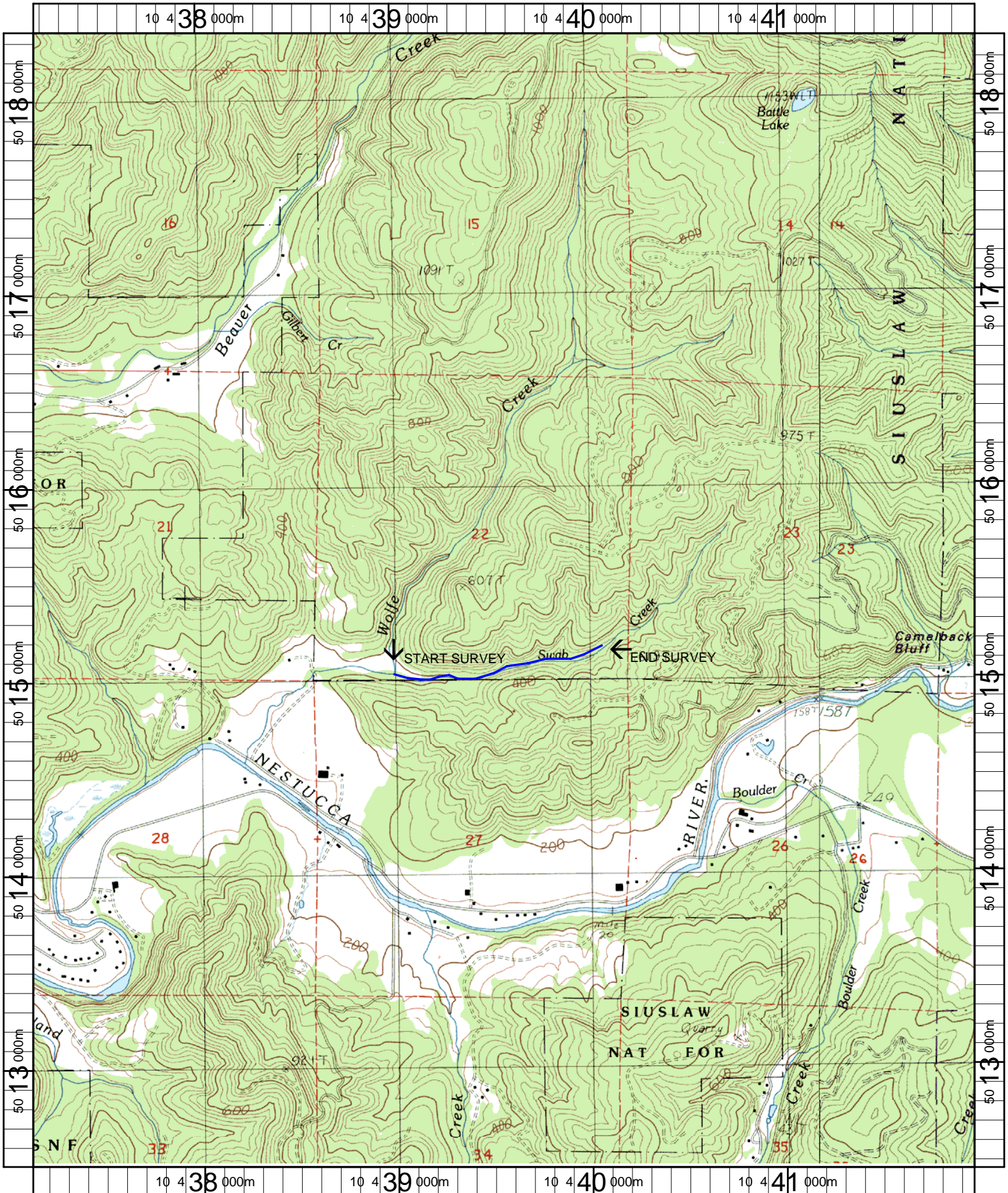
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	47	31.3	33.8
Pools >=1m deep:	1	0.7	0.7
Complex pools (LWD pieces>=3):	5	3.3	3.6
Pool frequency (channel widths/pool):	9.4		
Residual pool depth (avg):	0.38		

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 368 STREAM: SWAB CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
20	RI	01	185.9	\SS	
31	RI	01	349.1	HS	
32	CB	00	355.1		ACW=1.4M, TEMPERATURE =8.5C
51	RB	01	529.1	\TJ	
52	CB	11	529.1		ACW=4.1M, TEMPERATURE =8.5C
58	CB	00	653.2	PN	
59	RI	00	677.2	\LA	
74	RI	00	1016.7	TJ\	
76	RI	01	1069.5	SS\	
78	RI	00	1097.5		COHO FRY.
81	RB	11	1113		ACW=1.1M, TEMPERATURE=8C
83	RI	11	1116		ACW=1.1M, TEMPERATURE =8C
100	RB	11	1275.1		ACW=0.8M, TEMPERATURE =8C
108	RI	11	1355		ACW=0.55M, TEMPERATURE =8C
110	RI	00	1389	\SS	



Name: BEAVER
 Date: 1/9/2007
 Scale: 1 inch equals 2000 feet

Location: 10 439565 E 5015408 N
 Caption: SWAB CREEK RESTORATION SITE - NESTUCCA BASIN