

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

STREAM: Swab Creek (NC-368)  
BASIN: Nestucca River  
SURVEY TYPE: Pre-Tx  
DATE: March 22, 2007  
SURVEY CREW: Ryan Jacobsen, Jason Hatfield  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 1.7 km<sup>2</sup>  
USGS MAPS: Beaver  
ECOREGION: Coast Range Volcanic

**GENERAL DESCRIPTION:**

The Swab Creek habitat survey extended 1,396 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 3.1 (range: 1-8). Land use for the reach was young timber (3-15 cm dbh) and second growth timber (15-30 cm dbh). The average unit gradient was 2.9 percent. Riffles (68%), cascades (15%) and scour pools (15%) dominated stream habitat. Gravel (44%) and cobble (28%) dominated stream substrate. Wood volume was low at 12.8 m<sup>3</sup>/100m.

**COMMENTS:**

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

Minimal beaver activity was noted in the survey. Salmonid fry were observed during the survey. 1 debris jam was recorded.

REACH 1

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	3.1	VWI Range:	1 - 8

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	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 Channel	1,396	3,380	1
Secondary Channel	0	0	0
Off-Channel Units	63	73	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 3
Width: 2.5	Width: 4.0	9.4 ( 6.6 - 11.3 )	12.5 ( 8.8 - 16.5 )
Depth: 0.30	Height: 0.6	1.1 ( 0.7 - 1.4 )	1.7 ( 1.5 - 2 )

W:D ratio: 7.2  
 Stream Flow Type: MF  
 Average Unit Gradient: 2.9%  
 Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 2.5  
 Habitat Units/100m (total channel length): 6.4  
 Habitat Units/100m (primary channel length): 6.7

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
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):	127	9.1
Volume (m <sup>3</sup> ):	179	12.8
Key pieces (>=12m x 0.60m):	6	0.4

OREGON DEPT OF FISH AND WILDLIFE

SWAB CREEK PRE-TX (1-NC, 368)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

3/22/2007

REACH 1		T03S-R09W-S22SW					REACH 1					
HABITAT DETAIL												
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/BOULDERS	9	186	1.9	0.14	509	0	4	13	45	33	5	0
DRY UNIT	1	13	1.0	0.00	13	0	0	16	53	32	0	0
POOL-BACKWATER	4	10	2.0	0.31	21	0	57	24	20	0	0	0
POOL-LATERAL SCOUR	32	170	2.9	0.50	490	0	20	18	40	19	0	3
POOL-PLUNGE	1	4	4.5	0.65	16	0	0	20	60	20	0	0
RIFFLE	40	1,063	2.2	0.20	2,354	0	2	13	47	37	0	1
STEP/COBBLE	4	6	3.2	0.14	18	0	0	16	50	34	0	0
STEP/LOG	2	8	2.8	0.10	33	0	6	11	57	27	0	0
<b>Total:</b>	93	1,459	2.5	0.30	3,453	0	<b>Avg:</b> 11	16	44	28	0	1

HABITAT SUMMARY									
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	4	10	2.0	0.31	21	0.60%	0	0.0	
Scour Pools	33	173	3.0	0.51	506	14.66%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	40	1,063	2.2	0.20	2,354	68.16%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	9	186	1.9	0.14	509	14.73%	0	0.0	
Step/Falls	6	14	3.0	0.13	51	1.48%	0	0.0	
Dry	1	13	1.0	0.00	13	0.38%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

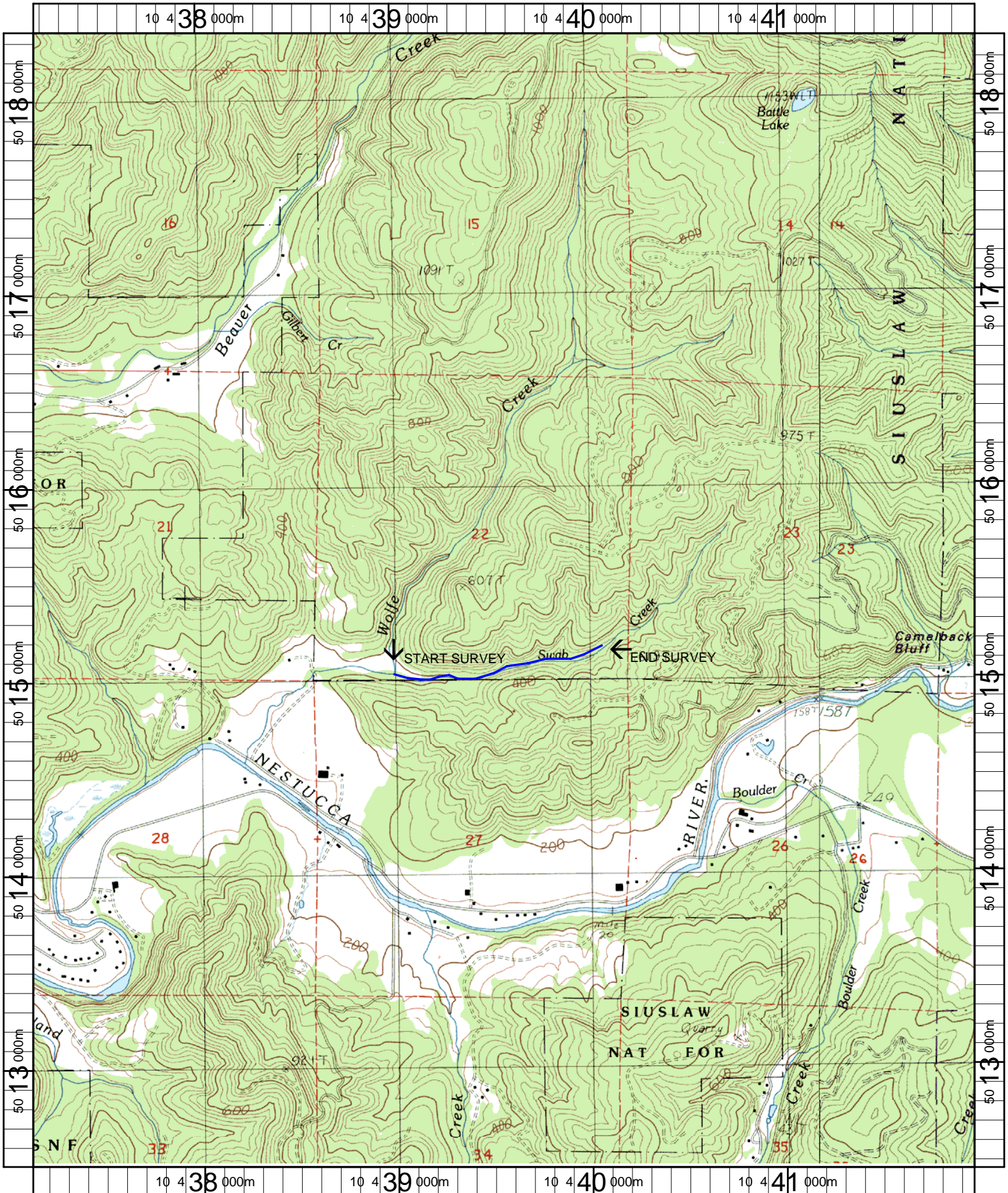
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	37	25.4	26.5
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	4	2.7	2.9
Pool frequency (channel widths/pool):	9.8		
Residual pool depth (avg):	0.37		

# Comment Summary

## Restoration Monitoring Sites 2007

MONITORING AREA: 1-NC      SITE ID: 368      SWAB CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
12	RI	00	107.7	BV	
14	LP	00	128.6	DJ, BV	
25	RI	00	266.6	BV	
37	LP	01	445.8	/TJ	
41	CB	01	525.8	SS	
43	CB	11	525.8		ACW=3.8 TEMPERATURE=9.0
45	CB	00	569.8	SS/	
55	LP	00	789.7		FRY SEEN
66	CB	11	1007.1		ACW=3.0, TEMPERATURE=9.0
70	RI	01	1107.1	TJ/TJ	
82	LP	00	1226.4		SALMONID SEEN (150MM)
86	CB	11	1307.4		ACW=1.5 TEMPERATURE=9.5
92	RI	11	1363.9		ACW=1.1 TEMPERATURE=9.5



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