

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

STREAM: Farmer Creek Tributary (NC-333)  
BASIN: Nestucca River  
SURVEY TYPE: Pre-Tx  
DATE: February 6, 2007  
SURVEY CREW: Ryan Jacobsen, Paul Jacobsen  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 0.8 km<sup>2</sup>  
USGS MAPS: Sand Lake  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Farmer Creek Tributary habitat survey extended 489 meters. The channel was constrained by hillslopes in a moderate V-shape valley. The average valley width index was 4.3 (range: 1.5-9). Land use for the reach was large timber (30-50 cm dbh) and second growth timber (15-30 cm dbh). The average unit gradient was 8.1 percent. Cascades (60%) and riffles (22%) dominated stream habitat. Gravel (37%) and cobble (32%) dominated stream substrate. Wood volume was moderate at 21.8 m<sup>3</sup>/100m.

**COMMENTS:**

There were no potential barriers to upstream fish migration in the surveyed length. 1 corrugated metal culvert (1.4 m diameter) was documented at 105 meters into the survey reach.

The crew noted 4 habitat structures during the first 100 meters of the survey.

No beaver activity was noted in the survey. 3 inactive landslides were recorded.

REACH 1      T04S-R10W-S34SW      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	4.3	VWI Range:	1.5 - 9

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 Channel	489	980	0
Secondary Channel	33	67	1
Off-Channel Units	22	35	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 2.2	Width: 3.6	5.3 ( 3.7 - 7.7 )	8.5 ( 4.8 - 12.1 )
Depth: 0.23	Height: 0.4	0.8 ( 0.8 - 0.9 )	1.3 ( 1.25 - 1.3 )

W:D ratio: 8.7      Entrenchment (ACW:FPW ratio): 1.5  
Stream Flow Type: MF      Habitat Units/100m (total channel length): 9.7  
Average Unit Gradient: 8.1%      Habitat Units/100m (primary channel length): 10.8  
Water temperature (°C): 8.0 - 8.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	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):	80	16.3
Volume (m <sup>3</sup> ):	107	21.8
Key pieces (>=12m x 0.60m):	2	0.4

OREGON DEPT OF FISH AND WILDLIFE FARMER CREEK TRIBUTARY PRE-TX (1-NC, 333)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

2/6/2007

REACH 1		T04S-R10W-S34SW					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	16	323	1.9	0.13	648	0	4	17	37	29	13	0
CULVERT CROSSING	1	14	0.7	0.05	10	0	0	20	40	40	0	0
DRY CHANNEL	1	10	2.0	0.00	20	0	10	20	30	40	0	0
POOL-LATERAL SCOUR	2	7	1.7	0.60	11	0	0	35	42	15	0	8
POOL-PLUNGE	12	28	3.0	0.52	81	0	6	20	39	31	4	0
RAPID/BOULDERS	1	27	1.9	0.10	50	0	0	11	33	44	11	0
RIFFLE	8	126	1.9	0.14	237	0	1	18	38	37	3	4
STEP/COBBLE	1	4	2.3	0.10	9	0	0	10	40	30	20	0
STEP/LOG	9	6	2.1	0.08	14	0	3	24	35	35	3	0
STEP/STRUCTURE	2	1	1.6	0.13	1	0	0	20	40	40	0	0
<b>Total:</b>	<b>53</b>	<b>545</b>	<b>2.2</b>	<b>0.23</b>	<b>1,082</b>	<b>0</b>	<b>Avg: 3</b>	<b>20</b>	<b>37</b>	<b>32</b>	<b>6</b>	<b>1</b>

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	0	0			0	0.00%	0	0.0	
Scour Pools	14	34	2.8	0.53	92	8.48%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	8	126	1.9	0.14	237	21.92%	0	0.0	
Rapids	1	27	1.9	0.10	50	4.66%	0	0.0	
Cascades	16	323	1.9	0.13	648	59.96%	0	0.0	
Step/Falls	12	11	2.1	0.09	24	2.23%	0	0.0	
Dry	1	10	2.0	0.00	20	1.85%	0	0.0	
Culverts	1	14	0.7	0.05	10	0.91%	0	0.0	

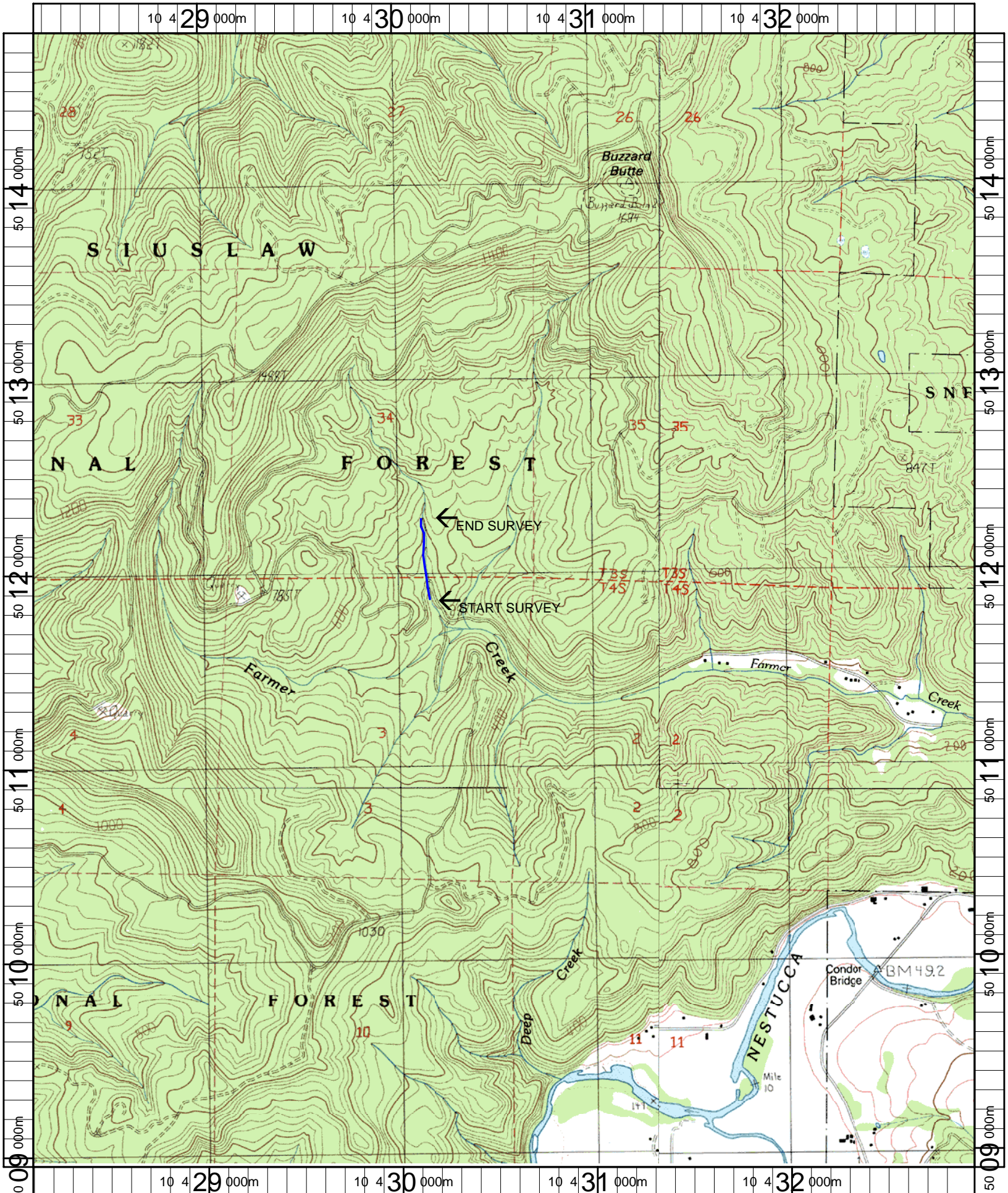
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	14	25.7	28.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	3.7	4.1
Pool frequency (channel widths/pool):	10.9		
Residual pool depth (avg):	0.35		

# Comment Summary

## Restoration Monitoring Sites 2007

MONITORING AREA: 1-NC      SITE ID: 333      FARMER CREEK TRIBUTARY PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
3	CB	02	40.4	HS	
4	PP	00	42.7	HS	
8	RI	00	84.5	HS, /CS	
10	SS	00	86.7	HS	
13	CC	00	105.1	CC	CORRUGATED METAL CULV. 1.4 m D
14	RI	01	122.6	TJ/	
15	RI	11	122.6		ACW=2.1. TEMPERATURE =9.0
24	RI	01	173.2	TJ/	
25	CB	11	173.2		ACW=2.0 TEMP=9.
31	CB	01	228	/LI	
37	SL	00	272.6	DJ	
40	CB	01	311.6	/LI	
50	CB	11	433.9	/LI	ACW=1.5, TEMPERATURE=8



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

Location: 10 430548 E 5011853 N  
 Caption: FARMER CREEK TRIBUTARY RESTORATION SITE -  
 NESTUCCA BASIN