

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

STREAM: Farmer Creek Tributary (N-333)  
BASIN: Nestucca River  
SURVEY TYPE: Pre-Tx  
DATE: February 27, 2006  
SURVEY CREW: Brian Cannon, Jon Nott  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 0.8 km<sup>3</sup>  
USGS MAPS: Sand Lake  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Farmer Creek Tributary habitat survey extended 514 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.8 (range: 1.2-2.2). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 7.1 percent. Rapids (42%) and cascades (39%) dominated stream habitat. Gravel (34%), silt (26%) and sand (22%) dominated stream substrate. Wood volume was moderate at 28.4 m<sup>3</sup>/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      T04S-R10W-S03NE      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	1.8	VWI Range:	1.2 - 2.2

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	514	943	0
Secondary Channel	39	55	2
Off-Channel Units	27	32	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<i>n = 6</i>	<u>First Terrace</u>	<i>n = 0</i>
Width: 1.8	Width: 3.6	6.4	( 4.6 - 9.3 )	( - )	
Depth: 0.16	Height: 0.6	1.2	( 0.9 - 1.3 )	( - )	

W:D ratio: 6.4      Entrenchment (ACW:FPW ratio): 1.8  
Stream Flow Type: MF      Habitat Units/100m (total channel length): 7.1  
Average Unit Gradient: 7.1%      Habitat Units/100m (primary channel length): 8.0  
Water temperature (°C): 10.0 - 10.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
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):	96	18.7
Volume (m <sup>3</sup> ):	146	28.4
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: 12/6/2006      Survey Date: 2/27/2006

REACH 1		T04S-R10W-S03NE					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	13	232	1.6	0.12	407	0	11	22	41	15	9	2
CULVERT CROSSING	1	12	1.0	0.25	12	0	100	0	0	0	0	0
DRY CHANNEL	2	18	1.0	0.00	20	0	15	29	29	28	0	0
POOL-LATERAL SCOUR	2	6	1.8	0.50	10	0	8	25	45	8	0	15
POOL-PLUNGE	1	4	3.2	0.98	13	0	5	20	50	20	5	0
RAPID/BOULDERS	9	229	1.8	0.13	428	0	11	21	43	21	4	0
RIFFLE	3	73	1.7	0.12	126	0	5	20	56	18	1	0
STEP/LOG	9	6	2.3	0.11	13	0	60	27	13	0	0	0
STEP/STRUCTURE	1	0	1.0	0.17	0	0	100	0	0	0	0	0
<b>Total:</b>	<b>41</b>	<b>579</b>	<b>1.8</b>	<b>0.16</b>	<b>1,030</b>	<b>0</b>	<b>Avg: 26</b>	<b>22</b>	<b>34</b>	<b>13</b>	<b>4</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	3	10	2.3	0.66	23	2.26%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	3	73	1.7	0.12	126	12.25%	0	0.0	
Rapids	9	229	1.8	0.13	428	41.59%	0	0.0	
Cascades	13	232	1.6	0.12	407	39.48%	0	0.0	
Step/Falls	10	6	2.2	0.12	14	1.32%	0	0.0	
Dry	2	18	1.0	0.00	20	1.94%	0	0.0	
Culverts	1	12	1.0	0.25	12	1.16%	0	0.0	

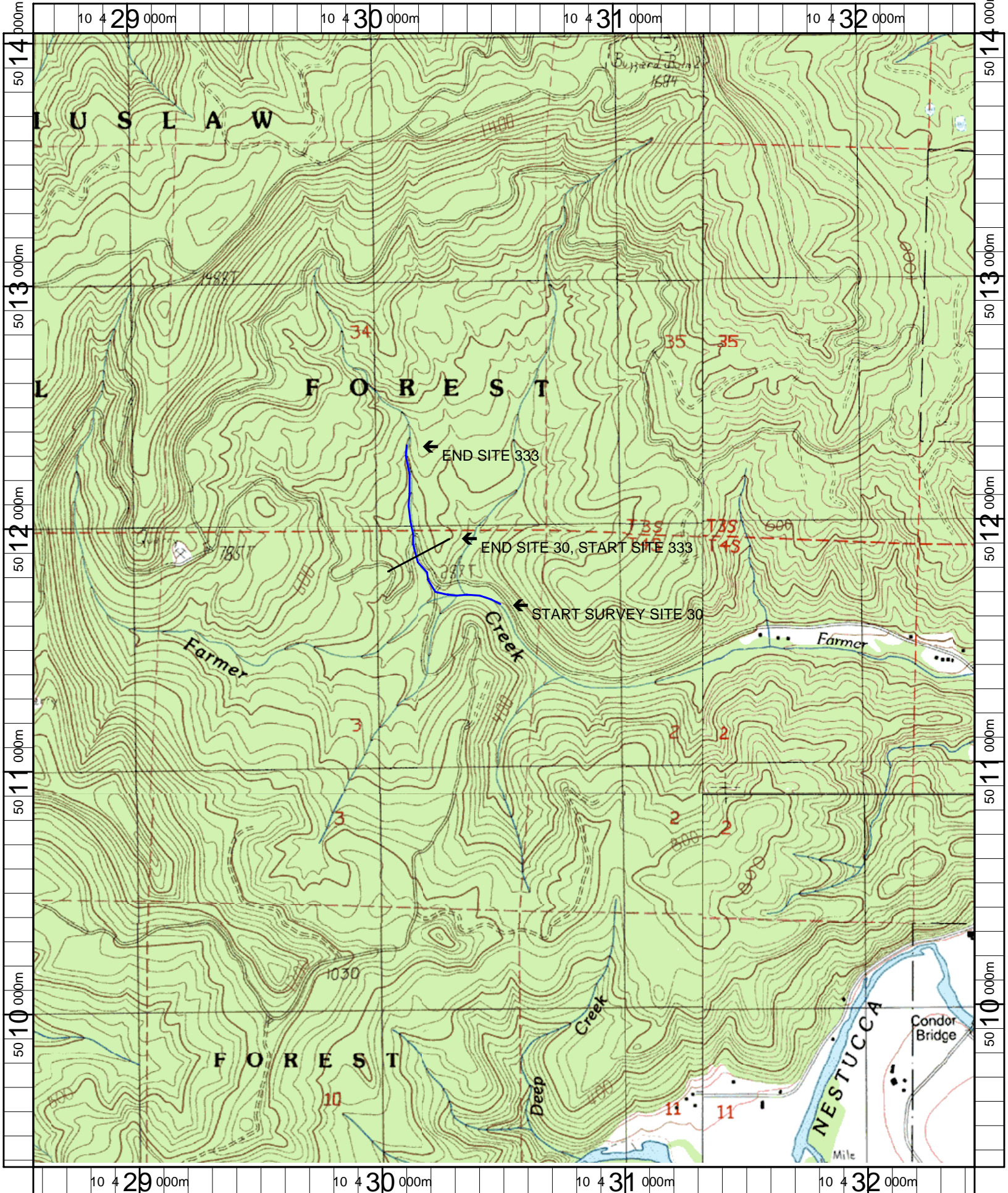
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	3	5.2	5.8
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	53.6		
Residual pool depth (avg):	0.50		

# Comment Summary

## Restoration Monitoring Sites 2006

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	RB	01	42.1	HS	HS = 5 LOGS	
5	SL	00	55.5		H = 1.2	
7	SL	00	85.2	HS	H = 0.5	
9	SS	00	89.5		H = 0.6	
10	CC	00	101.5	CC	1.5 x 1.5 CORRUGATED STEEL	
11	RB	01	121.2	TJ/		
12	CB	11	121.2		T = 10.0 AT 2PM	
15	SL	00	149.1		H = 0.45	
16	CB	01	164.8	TJ/		
17	CB	11	164.8		T = 10.0	
22	SL	00	214.7		H = 1.0	
23	RB	01	251.7	LA/		
26	CB	00	298.7	LI/		
28	SL	01	324.6		H = 0.9	
29	CB	01	335	LA/		
30	SL	01	335.5		H = 0.45	
32	SL	02	363.2		H = 0.8	
35	SL	00	364		H = 0.9	
37	CB	01	445.2	TJ/		
40	SL	00	477.2		H = 0.8	
41	CB	00	513.6	LS/, LI/		



Name: SAND LAKE (OR)  
 Date: 2/1/2007  
 Scale: 1 inch equals 1600 feet

Location: 10 0430525 E 5011686 N  
 Caption: FARMER CREEK RESTORATION SITES 30 AND 333 -  
 NESTUCCA BASIN