

**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: June 28, 2006  
SURVEY CREW: Gordon Rose, Ben Walczak  
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 494 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.4 (range: 1.5-5.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 7.0 percent. Rapids (57%) and riffles (24%) dominated stream habitat. Gravel (66%) and cobble (29%) dominated stream substrate. Wood volume was moderate at 28.7 m<sup>3</sup>/100m.

**COMMENTS:**

There were two potential barriers to upstream fish migration in the surveyed length. One was a 0.5 m high step and a high gradient culvert. The second was a 0.9 m high step over a log.

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	2.4	VWI Range:	1.5 - 5

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	494	647	0
Secondary Channel	27	22	0
Off-Channel Units	5	3	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 1.7	Width: 2.0	2.3 ( 1.9 - 2.5 )	3.8 ( 2.5 - 5 )
Depth: 0.15	Height: 0.2	0.4 ( 0.4 - 0.4 )	0.9 ( 0.8 - 0.9 )

W:D ratio: 10.1      Entrenchment (ACW:FPW ratio): 1.1  
Stream Flow Type: MF      Habitat Units/100m (total channel length): 8.2  
Average Unit Gradient: 7.0%      Habitat Units/100m (primary channel length): 8.7  
Water temperature (°C): -

**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:	26%	Reach avg: 93%
Undercut Banks:	0%	Range: 83 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	88	17.8
Volume (m <sup>3</sup> ):	142	28.7
Key pieces (>=12m x 0.60m):	5	1.0

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

HABITAT INVENTORY      Report Date: 3/5/2007      Survey Date: 6/28/2006

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/BEDROCK	1	5	0.6	0.05	3	0	0	0	10	20	0	70
CASCADE/BOULDERS	3	31	1.6	0.12	53	0	0	0	72	28	0	0
CULVERT CROSSING	1	11	1.0	0.05	11	0	0	0	50	50	0	0
POOL-PLUNGE	7	13	3.0	0.47	40	1	0	1	61	25	1	11
RAPID/BOULDERS	15	316	1.2	0.10	384	24	0	0	65	32	2	0
RIFFLE	6	142	1.1	0.09	162	0	0	3	73	24	0	1
STEP/LOG	8	7	2.1	0.06	16	0	0	0	74	26	0	0
STEP/STRUCTURE	2	0	3.0	0.10	2	0	0	0	65	35	0	0
<b>Total:</b>	<b>43</b>	<b>525</b>	<b>1.7</b>	<b>0.15</b>	<b>671</b>	<b>25</b>	<b>Avg: 0</b>	<b>1</b>	<b>66</b>	<b>29</b>	<b>1</b>	<b>4</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	7	13	3.0	0.47	40	6.00%	1	2.5	
Glides	0	0			0	0.00%	0	0.0	
Riffles	6	142	1.1	0.09	162	24.15%	0	0.0	
Rapids	15	316	1.2	0.10	384	57.26%	24	6.2	
Cascades	4	36	1.4	0.10	56	8.34%	0	0.0	
Step/Falls	10	7	2.3	0.07	17	2.58%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	11	1.0	0.05	11	1.67%	0	0.0	

POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	7	13.3	14.2
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	1.9	2.0
Pool frequency (channel widths/pool):	37.2		
Residual pool depth (avg):	0.37		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

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

Survey Date 6/28/2006

RIPARIAN ZONE

Report Date: 3/5/2007

VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	244
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1		Zone 2		Zone 3		Zones 1-3	
	0-10 meters		10 - 20 meters		20 - 30 meters		0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
15-30cm	0.3	1.0	1.0	0.3	0.7	0.0	2.0	1.3
30-50cm	0.3	1.7	0.7	0.3	0.3	0.7	1.3	2.7
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	2.7	1.7	0.7	1.0	0.7	1.2	1.3

Canopy closure and ground cover

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	77		79		82	
Shrub cover	50		34		22	
Grass/forb cover	40		60		78	

Predominant landform in each zone

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	83		83		100	
High terrace	17		0		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		0	
Riprap	0		0		0	
Surface slope (%)	33		30		33	

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	244
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

**Average number of trees in a 5-m wide band**

Diameter class (cm)	Zones 1-3 <u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.3	0.0
15-30cm	2.0	1.3
30-50cm	1.3	2.7
50-90cm	0.0	0.0
>90cm	0.0	0.0

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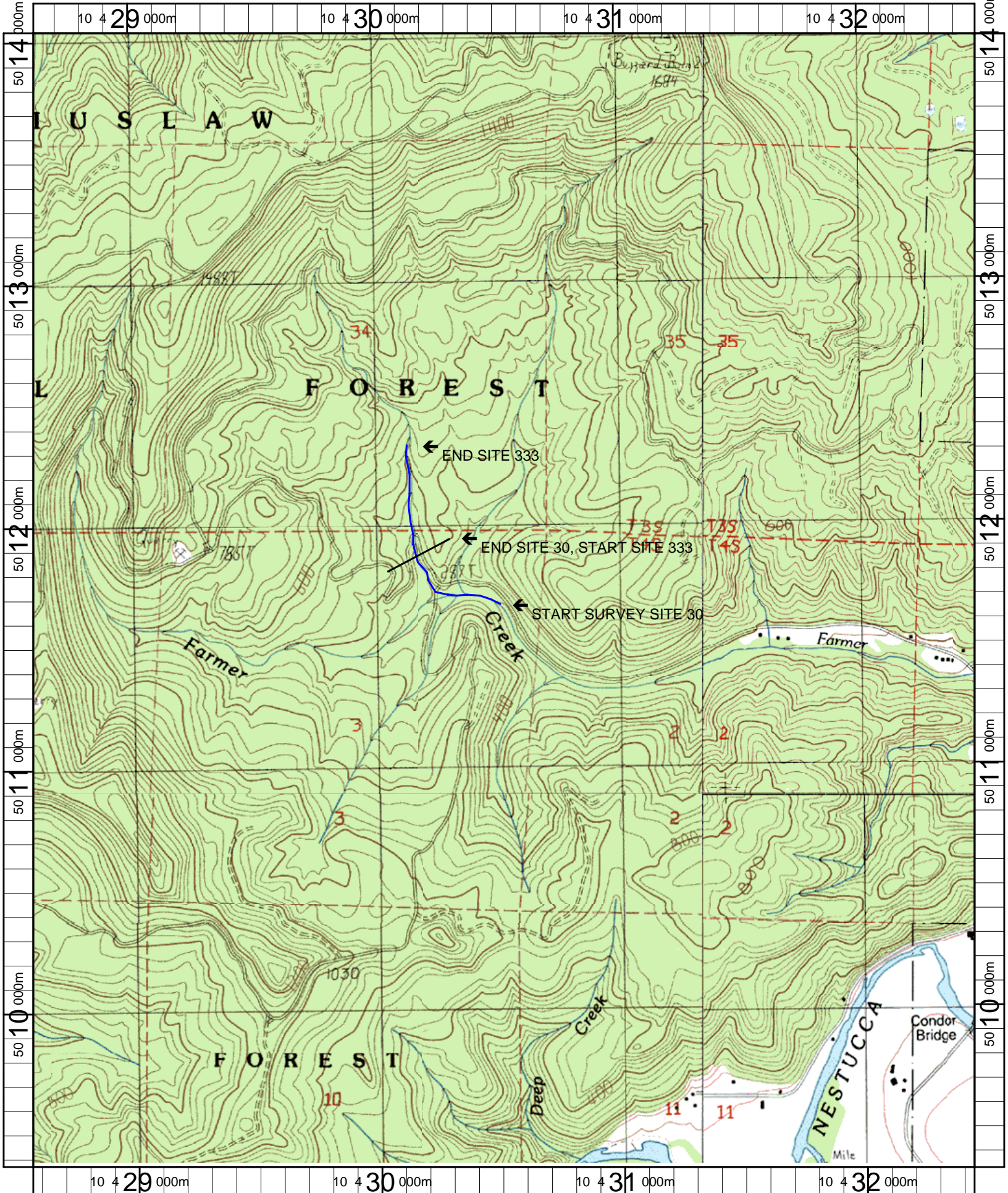
# Comment Summary

## 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
4	CB	00	47.3	HS		
6	SL	00	49.6		H=1.10M	
9	SS	00	82.1	HS	H=0.50M	
11	SS	00	86.2	PA	H=0.50M	
12	CC	00	97.4	PA, CC		010, ROUND, STEEL, 1.8M
13	RI	01	116.8	TJ/		
14	RI	02	116.8			RIPARIAN #1
18	SL	00	147.65		H=0.45M	
21	SL	00	164.95		H=0.10M	
24	SL	00	208.35	PN	H=0.90M	
25	RB	00	244.05	EA/		RIPARIAN #2
27	CB	00	287.55	ES/		
29	SL	00	319.35		H=0.80M	
30	RB	01	327.45	EA/		
32	SL	01	328.85		H=0.40M	
35	SL	00	357.95		H=1.10M	
36	RI	00	376.25			RIPARIAN #3
39	RB	01	439.15	TJ/		
42	SL	00	473.95		H=1.00M	PHOTO #4
43	RB	00	493.95			END SURVEY





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