

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

STREAM: Farmer Creek (NC-30)
BASIN: Nestucca River
SURVEY TYPE: Post-Tx
DATE: January 24, 2001
SURVEY CREW: Todd Boswell, Paul Jacobsen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.6 km²
USGS MAPS: Sand Lake
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Farmer Creek habitat survey extended 449 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.8 (range: 1.5 – 10.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.2 percent. Rapids (33%) and scour pools (32%) dominated stream habitat. Gravel (37%) and cobble (34%) dominated stream substrate. Wood volume was high at 39.5 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

REACH SUMMARY

REACH 1

T4S-R10W-S3NE

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 avg: 4.8 range: 1.5-10.0

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	449	1,923	0
Secondary	40	154	0

Channel Dimensions (m)

	<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>		<u>First Terrace</u>
Width	4.6	Width	5.4		8.0		11.5
Depth	0.31	Height	0.4		0.8		1.1
		W:D ratio	12.2	Entrenchment	1.5		

Stream Flow Type: HF Water Temp: 7.0-7.0°C
 Avg. Unit Gradient: 2.2% Habitat Units/100m: 5.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D15	D30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 0%
Undercut Banks	0%	Range: 0- 0

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	49	10.9
Volume (m ³)	177	39.5
Key pieces ($\geq 10m \times 0.6m$)	22	4.9

HABITAT UNIT SUMMARY

REACH 1

T4S-R10W-S3NE

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	Cbbl	Bldr	Bdrk
POOL-BACKWATER	1	7	3.0	0.30	22	0	10	40	45	5	0	0
POOL-LATERAL SCOUR	9	109	5.8	0.53	647	0	5	25	38	24	2	5
POOL-PLUNGE	1	4	2.4	0.45	10	0	5	25	65	5	0	0
RAPID/BOULDERS	9	225	3.3	0.18	682	0	1	14	33	42	9	1
RIFFLE	4	122	4.6	0.18	556	0	2	12	32	43	8	1
STEP/COBBLE	4	22	5.8	0.20	161	0	1	8	41	41	9	0
Total:	28	490	4.6	0.31	2,077	0	Avg: 3	18	37	34	6	2

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	#/100m ²
Dammed & BW Pools	1	7	3.0	0.30	22	1.05	0	0.0
Scour Pools	10	113	5.5	0.53	656	31.60	0	0.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	4	122	4.6	0.18	556	26.78	0	0.0
Rapids	9	225	3.3	0.18	682	32.84	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	4	22	5.8	0.20	161	7.73	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

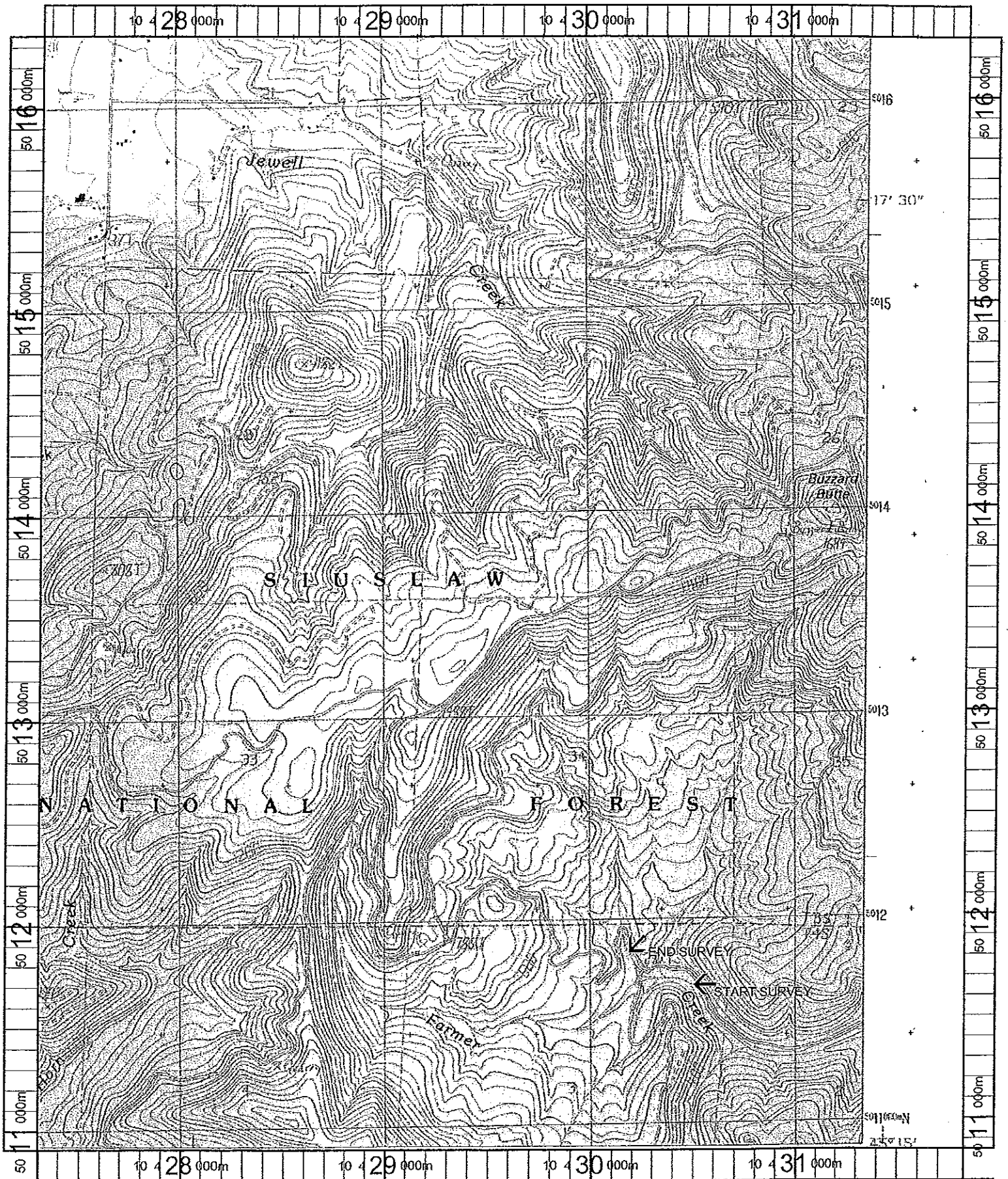
All Pools	<u>Total</u>	<u>#/Km</u>
	11	22.5
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	4	8.2
Pool Frequency (channel widths/pool):	8.2	
Residual pool depth (avg)	0.32m	

STREAM SUMMARY

FARMER CREEK POST-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area					Total Large Boulder	
					S/O	Sand	Grvl	Cbbl	Bldr		Bdrk
28	490	4.6	0.31	2,077	3	18	37	34	6	2	0

Habitat Group	Wetted Area	
	(m ²)	Percent
Scour Pool	656	31.6
Backwater Pools	22	1.1
Glide	0	0.0
Riffle	556	26.8
Rapid	682	32.8
Cascade	0	0.0
Step	161	7.7
Dry	0	0.0



Name: SAND LAKE
 Date: 11/8/100
 Scale: 1 inch equals 2000 feet

Location: 10 429489 E 5013586 N
 Caption: FARMER CREEK RESTORATION SITE - NESTUCCA BASIN