

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

STREAM: South Fork Little Nestucca River (NC-113)  
BASIN: Nestucca River  
SURVEY TYPE: Post-Tx  
DATE: August 24, 1996  
SURVEY CREW: Barry Thom, Paul Jacobsen  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 16.4 km<sup>2</sup>  
USGS MAPS: Dolph  
ECOREGION: Coast Range Volcanic

**GENERAL DESCRIPTION:**

The South Fork Little Nestucca River habitat survey extended 418 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.1 (range: 1.8 – 2.5). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.4 percent. Scour pools (31%) and slackwater pools (21%) dominated stream habitat. Gravel (28%) and bedrock (24%) dominated stream substrate. Wood volume was low at 15.4 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

T5S-R10W-S36SW

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	0	Multiple Terraces	100
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 2.1 range: 1.8-2.5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	0
Bedrock	0	Multiple Channel	0
Terrace	0	Braided Channel	0
Alt. Terrace/Hill	100		
Landuse	0		

Channel Characteristics

<u>Type</u>	<u>Length(m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	418	2,091	0
Secondary	43	158	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	4.6	Width	8.9	0.0	10.3
Depth	0.39	Height	0.5	0.0	0.9
		W:D ratio	17.9	Entrenchment	**.*

Stream Flow Type: Water Temp: 12.5-12.5°C  
 Avg. Unit Gradient: 1.4% Habitat Units/100m: 7.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	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	0%	Reach avg: 87%
Undercut Banks	3%	Range: 69-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	62	14.8
Volume (m <sup>3</sup> )	64	15.4
Key pieces ( $\geq 10m \times 0.6m$ )	2	0.5

REACH 1		T5S-R10W-S36SW						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	Cbbl	Bldr	Bdrk	
GLIDE	4	60	6.0	0.30	365	9	10	31	22	17	6	14	
POOL-ALCOVE	1	14	3.5	0.30	49	0	80	20	0	0	0	0	
POOL-BACKWATER	1	3	1.5	0.40	4	0	20	30	50	0	0	0	
POOL-DAMMED	3	61	5.8	0.58	382	6	18	24	40	8	8	2	
POOL-ISOLATED	1	8	5.0	0.50	40	1	5	15	15	20	5	40	
POOL-LATERAL SCOUR	8	94	4.9	0.56	468	10	17	22	35	18	6	3	
POOL-PLUNGE	1	19	6.0	1.70	114	10	10	20	15	20	5	30	
POOL-STRAIGHT SCOUR	1	18	6.0	0.80	108	0	5	5	5	5	0	80	
RAPID/BEDROCK	3	59	4.3	0.13	269	0	0	7	17	7	3	67	
RAPID/BOULDERS	1	9	5.0	0.05	45	1	5	10	40	40	5	0	
RIFFLE	6	81	3.3	0.17	313	15	2	15	35	13	3	32	
STEP/BEDROCK	2	29	1.9	0.20	55	0	0	0	0	0	0	100	
STEP/COBBLE	1	3	7.0	0.05	18	0	5	20	60	15	0	0	
STEP/LOG	1	4	6.0	0.10	21	0	5	70	20	5	0	0	
<b>Total:</b>	<b>34</b>	<b>461</b>	<b>4.6</b>	<b>0.39</b>	<b>2,249</b>	<b>52</b>	<b>Avg:11</b>	<b>20</b>	<b>28</b>	<b>13</b>	<b>4</b>	<b>24</b>	

HABITAT SUMMARY

Habitat Group	No. 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	6	86	4.6	0.49	475	21.11	7	1.5
Scour Pools	10	131	5.1	0.70	690	30.66	20	2.9
Glides	4	60	6.0	0.30	365	16.23	9	2.5
Riffles	6	81	3.3	0.17	313	13.92	15	4.8
Rapids	4	68	4.5	0.11	314	13.94	1	0.3
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	4	35	4.2	0.14	93	4.15	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

	Total	#/Km
All Pools	16	34.7
Pools ≥1m deep:	1	2.2
Complex pools (LWD pieces ≥3):	5	10.9
Pool Frequency (channel widths/pool):	3.2	
Residual pool depth (avg)	0.47m	

STREAM SUMMARY

SF L NESTUCCA 1996 POST-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
34	461	4.6	0.39	2,249	11	20	28	13	4	24	52

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	690	30.7
Backwater Pools	475	21.1
Glide	365	16.2
Riffle	313	13.9
Rapid	314	13.9
Cascade	0	0.0
Step	93	4.1
Dry	0	0.0

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) (1 transects)

Total hardwoods/1000 ft	1,036
Total conifers/1000 ft	1,707
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 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	3.0	3.0	11.0	1.0	2.0	0.0	16.0	4.0
15-30cm	5.0	9.0	4.0	2.0	2.0	2.0	11.0	13.0
30-50cm	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
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/100m <sup>2</sup>	9.0	12.0	15.0	3.0	4.0	2.0	9.3	5.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	85		90		90	
Shrub cover	15		10		20	
Grass/forb cover	40		10		30	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
Hillslope	50		100		100	
High terrace	50		0		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	18		18		20	

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Summary of Riparian Zone (0-30m) for all reaches ( 1 transects)

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

Total hardwoods/1000 ft	1,036
Total conifers/1000 ft	1,707
Total conifers >20" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	16.0	4.0
15-30cm	11.0	13.0
30-50cm	1.0	0.0
50-90cm	0.0	0.0
>90cm	0.0	0.0

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RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

VEGETATION DETAIL

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
40	LF	1	HT	5.0	80	10	70	Conifer	3	0	0	0	0	
								Hardwood	3	9	0	0	0	
40	LF	2	HS	30.0	100	0	10	Conifer	9	1	0	0	0	
								Hardwood	0	0	0	0	0	
40	LF	3	HS	30.0	90	20	40	Conifer	1	1	0	0	0	
								Hardwood	0	0	0	0	0	
40	RT	1	HS	30.0	90	20	10	Conifer	0	5	1	0	0	
								Hardwood	0	0	0	0	0	
40	RT	2	HS	5.0	80	20	10	Conifer	2	3	0	0	0	
								Hardwood	1	2	0	0	0	
40	RT	3	HS	10.0	90	20	20	Conifer	1	1	0	0	0	
								Hardwood	0	2	0	0	0	

# STREAM HABITAT STATUS SHEET

**STREAM NAME** SFL Nestucca 1996 Post-7x **CONTRACT**  
**BASIN** Nestucca **CREW** P. Jackson, P. Thom

**DATE                      FILENAME                      COMMENTS**

ENTRY				ENTERED BY:
REACH	11/21/01	57968	HR.DBF	
UNIT 1			U1.DBF	
UNIT 2			U2.DBF	
UNIT CHECK			CHK.DBF	
RIPARIAN			RP.DBF	
WOOD			WD.DBF	

ANALYSIS				ANALYZED BY:
CALIBRATION			CAL.DBF	
MAP SUMMARY/CORRECTIONS				
WOOD EXPAND			WE.DBF	
UNIT LINK			UX.DBF	
UNIT LINK WITH WOOD			UX2.DBF	
PROFILES + COMMENT SUMMARY			PRO.XLS	
HABITAT REPORT LINK			LNK.DBF	
RIPARIAN LINK			RLK.DBF	

FINAL REPORT				COMPLETED BY:
BAR GRAPHS			BAR.XLS	
COVER + REPORT			COV.DOC	
PHOTOS				
REPORT MAPS				
REACH ENTRY				

**COMMENTS / NOTES**

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**OREGON PLAN / REFERENCE SURVEYS**

BASIN AREA	BEAVER DAMS	#	MAJOR FAILURES	#
STREAM ORDER	BEAVER ACTIVITY	#	DEBRIS JAMS	#
JAMS FROM WOOD SHEETS # <u>5</u>	CULVERT CROSSINGS	#	HABITAT STRUCTURES	# <u>12</u>



