

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

STREAM: South Fork Wilson River Tributary (N-258)
BASIN: Wilson River
SURVEY TYPE: Pre-Tx
DATE: June 29, 2004
SURVEY CREW: Scott Young, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.7 km²
USGS MAPS: Woods Point
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The South Fork Wilson River Tributary habitat survey extended 670 meters. The channel was constrained by hillslopes in a steep V-shaped valley. The average valley width index was 2.4 (range: 1.5-5.0). Land use for the reach was mature (50-90 cm dbh) trees. The average unit gradient was 4.9 percent. Rapids (34%) and riffles (26%) dominated stream habitat. Gravel (35%) and cobble (32%) dominated stream substrate. Wood volume was very high at 51.3 m³/100m.

COMMENTS:

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

REACH 1

T01N-R06W-S09NE

REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	100%	Constraining Terraces	0%
Moderate V-shape	0%	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	670	2,417	0
Secondary	18	42	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 3.9	Width: 6.2	8.5 (6.4 - 13.5)	8.5 (8.5 - 8.5)
Depth: 0.28	Height: 0.5	1.1 (1 - 1.2)	1.6 (1.6 - 1.6)

W:D ratio: 11.1

Stream Flow Type: MF

Average Unit Gradient: 4.9%

Water temperature (°C): 11.5 - 11.5

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 8.1

Habitat Units/100m (primary channel length): 8.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	
Riparian Vegetation:	D50	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 90%
Undercut Banks:	4%	Range: 83 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	220	32.8
Volume (m ³):	344	51.3
Key pieces (>=12m x 0.60m):	12	1.8

OREGON DEPARTMENT OF FISH AND WILDLIFE

SF WILSON RIVER TRIB PRE-TX (N-258)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

6/29/2004

REACH 1

T01N-R06W-S09NE

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	Cbl	Bldr	Bdrk
CASCADE/BOULDERS	7	99	4.6	0.22	479	12	8	13	37	34	3	5
POOL-LATERAL SCOUR	11	81	3.5	0.54	295	15	12	23	33	21	4	7
POOL-PLUNGE	5	21	4.9	0.45	99	4	16	32	34	11	2	5
RAPID/BEDROCK	1	11	3.5	0.15	37	1	5	5	19	19	5	48
RAPID/BOULDERS	13	247	3.1	0.18	803	39	5	15	35	37	5	4
RIFFLE	12	215	2.9	0.21	633	15	6	14	38	38	3	0
STEP/COBBLE	1	3	3.4	0.25	9	3	0	11	22	56	11	0
STEP/LOG	6	11	7.0	0.10	103	1	5	12	37	45	1	0
Total:	56	687	3.9	0.28	2,459	90	Avg: 8	17	35	32	3	4

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m ²)	Percent	Number	(# / 100m ²)
Dammed & BW Pools	0	0			0	0.00%	0	0.0
Scour Pools	16	102	4.0	0.51	394	16.02%	19	4.8
Glides	0	0			0	0.00%	0	0.0
Riffles	12	215	2.9	0.21	633	25.76%	15	2.4
Rapids	14	258	3.1	0.18	840	34.17%	40	4.8
Cascades	7	99	4.6	0.22	479	19.47%	12	2.5
Step/Falls	7	13	6.5	0.12	113	4.57%	4	3.6
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	Total	# / Km	# / Km
All Pools:	16	23.3	23.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	7.3	7.5
Pool frequency (channel widths/pool):	7.0		
Residual pool depth (avg):	0.36		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	528
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	41
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	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
15-30cm	0.3	1.0	0.0	0.7	0.3	0.7	0.7	2.3
30-50cm	0.0	3.7	0.0	1.3	1.0	1.0	1.0	6.0
50-90cm	0.0	0.0	0.3	0.0	0.3	0.0	0.7	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	5.0	0.3	2.0	1.7	1.7	0.8	2.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	81		64		74	
Shrub cover	22		8		12	
Grass/forb cover	72		65		70	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	83		67		83	
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		33		17	
Riprap	0		0		0	
Surface slope (%)	37		46		53	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

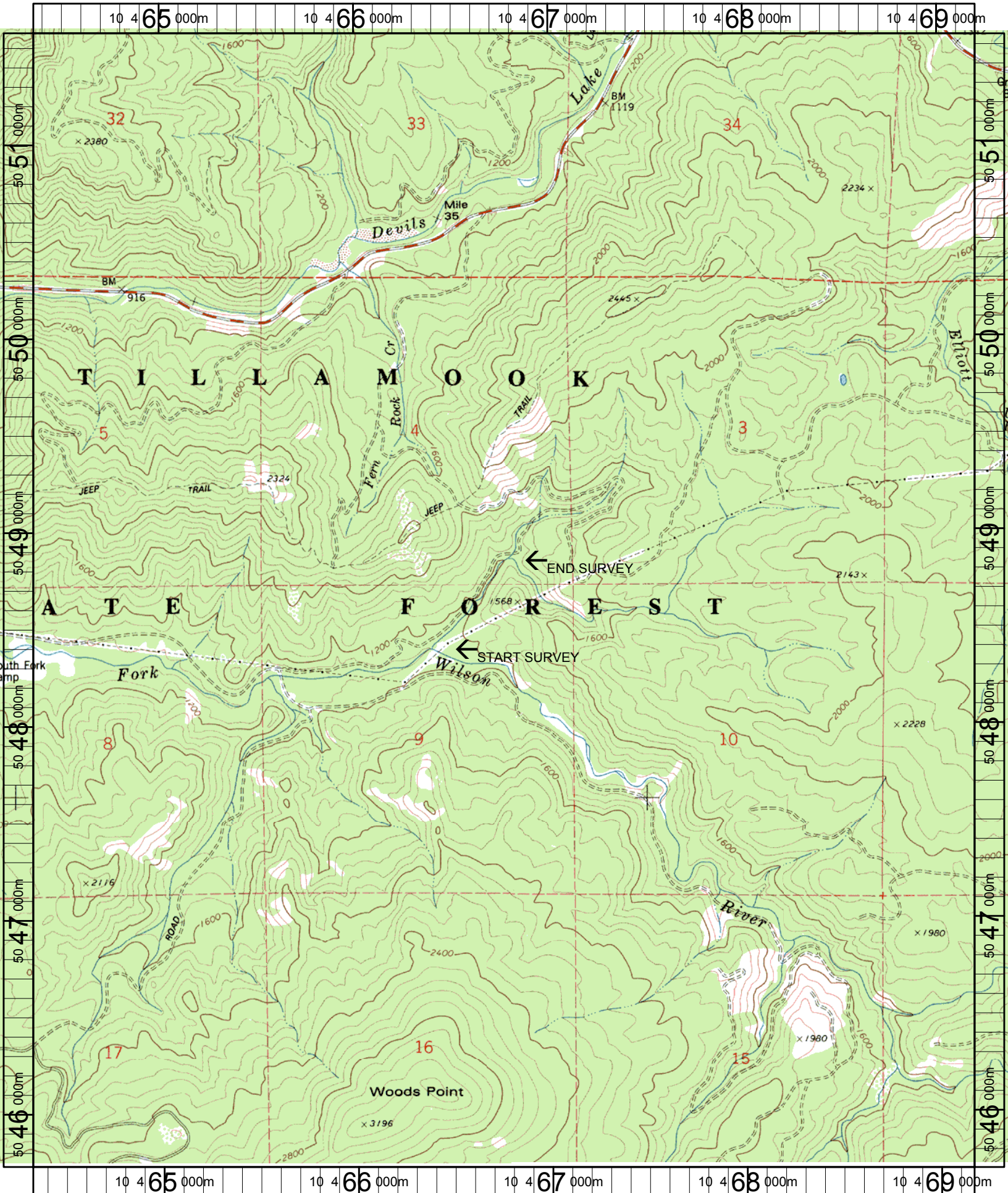
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
16	RT	3	HS	18	85	0	100	Conifer							
								Hardwood							
16	LF	1	HS	30	70	40	60	Conifer							10T 0466515
								Hardwood		1	2				5048530 (3D)
16	LF	2	RB	0	20	0	0	Conifer							
								Hardwood							
16	LF	3	HS	30	80	30	70	Conifer		1	2				
								Hardwood		1					
16	RT	1	HS	70	85	30	70	Conifer							
								Hardwood			2				
16	RT	2	HS	35	85	10	90	Conifer					1		
								Hardwood			2				
25	RT	3	HS	90	70	0	100	Conifer							10T 04466575
								Hardwood			2				5048593 2D
25	RT	1	HT	0	80	5	95	Conifer							
								Hardwood		1	4				
25	LF	3	HS	90	70	10	40	Conifer				1			
								Hardwood		1					
25	LF	1	HS	90	70	15	45	Conifer							
								Hardwood			2				
25	RT	2	HS	90	80	0	100	Conifer							
								Hardwood			1				
25	LF	2	RB	0	50	20	20	Conifer							
								Hardwood							
36	RT	3	HS	90	90	10	90	Conifer					1		
								Hardwood			1				
36	RT	2	HS	80	90	10	90	Conifer							
								Hardwood		2	1				
36	RT	1	HS	10	90	30	70	Conifer		1					
								Hardwood			1				
36	LF	3	RB	0	50	20	20	Conifer							
								Hardwood							
36	LF	2	HS	70	60	10	90	Conifer							
								Hardwood							
36	LF	1	HS	20	90	10	90	Conifer							
								Hardwood	1	1					

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 258 SF WILSON RIVER TRIB PRE-TX (N-2)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	CB	01	12.9		TEMP=11.5 DEG C AT 11:	10T 046643 5048415 - START
3	RB	01	43.4		01 FOR ABOUT 5M	
4	RB	02	43.4	RF	INFLUENCED BY ROADS	
15	RB	00	168.1		SITE 3 10T 0466515 50485	
16	LP	00	174.4		WOOD CREATING METRI	
18	CB	11	190.1	TJ		TRIB
19	LP	00	196.8		TEMP=12 DEG C AT 13:00	
20	CB	00	217			REALLY CASCADE OVER LO
21	CB	00	232.5	DJ		
25	LP	00	282.9		RIP T 2 10T 04466575 504	
30	SL	00	313.9		H=0.75M	
33	SL	00	338.1		H=.25M	
36	RI	00	416.8		RIP T 3	
45	SL	00	516.35		H=0.50M	
48	CB	00	554.75	DJ		
50	RI	00	606.55	SS/		
52	SL	00	625.85		H=0.60M	
55	SL	00	654.8		H=0.60M	



Name: WOODS POINT
 Date: 11/1/2004
 Scale: 1 inch equals 2000 feet

Location: 10 466757 E 5048641 N
 Caption: SOUTH FORK WILSON RIVER TRIBUTARY RESTORATION SITE
 - WILSON BASIN