

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: July 5, 2005
SURVEY CREW: Scott Young, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.9 km²
USGS MAPS: Woods Point
ECOREGION: Coast Range Volcanics

GENERAL DESCRIPTION:

The South Fork Wilson River Tributary habitat survey extended 706 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.6 (range: 1.5-4.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 3.5 percent. Rapids (55%) and scour pools (28%) dominated stream habitat. Gravel (40%) and cobble (31%) dominated stream substrate. Wood volume was moderate at 28.8 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	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.6	VWI Range:	1.5 - 4

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 Channel	706	2,726	0
Secondary Channel	13	19	1
Off-Channel Units	6	8	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 4.1	Width: 6.2	7.7 (7.3 - 8.8)	9.8 (8.9 - 11.4)
Depth: 0.26	Height: 0.3	0.6 (0.6 - 0.7)	1.1 (1 - 1.3)

W:D ratio: 20.3

Stream Flow Type: MF

Average Unit Gradient: 3.5%

Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 7.7

Habitat Units/100m (primary channel length): 7.9

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	2%	Reach avg: 89%
Undercut Banks:	3%	Range: 78 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	185	26.2
Volume (m ³):	203	28.8
Key pieces (>=12m x 0.60m):	3	0.4

OREGON DEPT OF FISH AND WILDLIFE SF WILSON RIVER TRIBUTARY PRE-TX (1-NC, 258)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/5/2005

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
DRY CHANNEL	1	13	1.5	0.00	19	0	0	10	60	30	0	0
POOL-BACKWATER	2	5	1.5	0.30	7	0	23	41	24	12	0	0
POOL-ISOLATED	1	1	1.0	0.25	1	0	11	42	42	5	0	0
POOL-LATERAL SCOUR	13	154	4.0	0.53	614	9	3	34	27	26	2	8
POOL-PLUNGE	5	26	6.0	0.50	157	2	6	48	26	16	2	2
RAPID/BEDROCK	1	25	3.8	0.10	94	5	0	6	11	22	6	56
RAPID/BOULDERS	19	395	3.7	0.14	1,430	30	0	8	45	42	4	1
RIFFLE	6	88	3.6	0.12	322	1	0	9	59	31	1	0
STEP/BEDROCK	1	3	1.0	0.10	3	0	0	0	0	0	0	100
STEP/COBBLE	1	5	8.0	0.15	42	0	0	5	32	63	0	0
STEP/LOG	5	9	6.4	0.11	52	0	1	15	55	29	0	0
STEP/STRUCTURE	1	2	7.5	0.10	11	0	0	10	60	30	0	0
Total:	56	724	4.1	0.26	2,753	47	Avg: 2	20	40	31	2	5

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	3	6	1.3	0.28	8	0.28%	0	0.0	
Scour Pools	18	180	4.6	0.52	771	28.02%	11	1.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	6	88	3.6	0.12	322	11.70%	1	0.3	
Rapids	20	420	3.7	0.14	1,524	55.35%	35	2.3	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	8	18	6.1	0.11	109	3.95%	0	0.0	
Dry	1	13	1.5	0.00	19	0.69%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	21	29.0	29.7
Pools >=1m deep:	1	1.4	1.4
Complex pools (LWD pieces>=3):	9	12.4	12.7
Pool frequency (channel widths/pool):	5.5		
Residual pool depth (avg):	0.42		

Survey Date 7/5/2005
Report Date: 4/26/2006

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	305
Total conifers/1000 ft	20
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	0.0	0.0	0.0	0.3	0.0	1.3	0.0	1.7
15-30cm	0.0	0.3	0.0	2.0	0.0	0.0	0.0	2.3
30-50cm	0.3	1.0	0.0	0.0	0.0	0.0	0.3	1.0
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/100m2	0.3	1.3	0.0	2.3	0.0	1.3	0.1	1.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	70		70		64	
Shrub cover	48		47		25	
Grass/forb cover	53		53		53	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	67		83		50	
High terrace	33		17		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		50	
Riprap	0		0		0	
Surface slope (%)	51		67		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	305
Total conifers/1000 ft	20
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	0.0	1.7
15-30cm	0.0	2.3
30-50cm	0.3	1.0
50-90cm	0.0	0.0
>90cm	0.0	0.0

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HABITAT INVENTORY Report Date: 4/27/2006

Survey Date: 7/5/2005

GCG: 1-NC SITE ID: 258

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

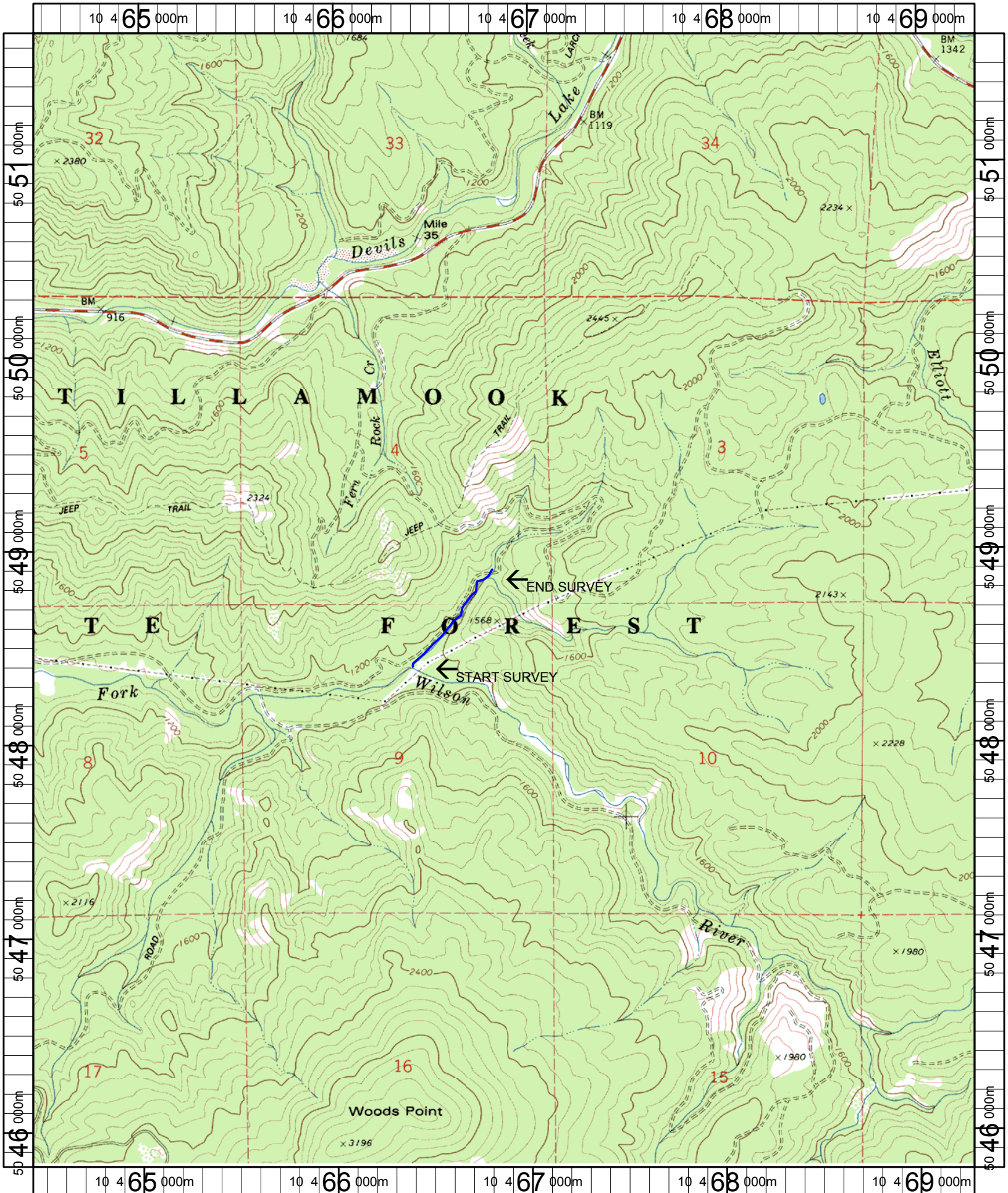
Unit	Side	Zone	Surface	Slope	Cover (percent)			Diameter class (cm)					Notes		
					Canopy	Shrub	Grass	3-15	15-30	30-50	50-90	>90			
11	RT	2	HS	25	75	60	40	Conifer							
								Hardwood		1					
11	LF	2	HS	65	80	70	30	Conifer							
								Hardwood							
11	LF	1	HS	65	80	70	30	Conifer				1		2D	
								Hardwood		1				0466489/50434	96
11	RT	1	HT	0	75	60	40	Conifer							
								Hardwood				1			
11	RT	3	HS	25	75	40	60	Conifer							
								Hardwood							
11	LF	3	RB	0	60	20	40	Conifer						40 PCT	
								Hardwood						ROADBED	
26	LF	2	HS	120	60	35	65	Conifer							
								Hardwood							
26	LF	1	HS	120	60	5	95	Conifer						2D	
								Hardwood						0466489/50484	96
26	LF	3	RB	0	45	30	30	Conifer						40 PCT	
								Hardwood		2				ROADBED	
26	RT	1	HT	0	65	70	30	Conifer							
								Hardwood							
26	RT	2	HT	0	65	70	30	Conifer							
								Hardwood			2				
26	RT	3	HS	75	70	30	70	Conifer							
								Hardwood		1					
38	RT	1	HS	20	70	50	50	Conifer							
								Hardwood				2			
38	RT	2	HS	90	70	20	80	Conifer							
								Hardwood		1					
38	LF	1	HS	100	70	30	70	Conifer						2D	
								Hardwood						0466654/50487	03
38	LF	2	HS	100	70	25	75	Conifer							
								Hardwood			3				
38	RT	3	HS	100	70	10	90	Conifer							
								Hardwood		1					
38	LF	3	RB	0	65	20	30	Conifer						50 PCT	
								Hardwood						ROADBED	

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC SITE ID: 258 SF WILSON RIVER TRIBUTARY PRE-

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
3	RB	00	47.8	RF		
7	SL	00	82.5		H 0.6M	
11	RB	01	150.2		RIPARIAN 1	
15	SL	00	186.3		H=0.65M	
16	LP	00	197.2			WEAK POOL
17	RB	00	222.2			NICE POCKET
18	RB	01	233.4			NICE POCKETS MADE BY LO
20	LP	00	244.1	DJ		COVERED BY LOGS
22	PP	00	254.4			COVERED BY LOGS
23	SL	00	257.4		H=0.7M	
26	LP	00	297.4		RIPARIAN 2	
27	SR	00	300.4		H=0.85M	
31	SC	00	340.4		H=0.45M	
33	SS	00	347.1		H=0.6M	PLACED LOG
38	RB	00	438.6		RIPARIAN 3	
45	SL	00	544.2		H=0.6M	
52	RB	00	652.9	SS/		
55	SL	00	688.1		H 0.5M	
56	RI	00	705.9			END SURVEY AT CULVERT



Name: WOODS POINT
 Date: 6/9/2005
 Scale: 1 inch equals 2000 feet

Location: 10 466866 E 5048739 N
 Caption: SOUTH FORK WILSON RIVER TRIBUTARY RESTORATION SITE
 - WILSON BASIN