

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: Post-Tx
DATE: September 19, 2006
SURVEY CREW: Gordon Rose, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.9 km²
USGS MAPS: Woods Point
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The South Fork Wilson River Tributary habitat survey extended 741 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.1 (range: 1.5-3.1). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 3.6 percent. Rapids (32%), riffles (31%) and scour pools (24%) dominated stream habitat. Gravel (36%) and cobble (27%) dominated stream substrate. Wood volume was very high at 50.6 m³/100m.

COMMENTS:

There was one potential barrier to upstream fish migration in the surveyed length. This was a 0.95 m high step over log at unit 11 (196 m).

The crew noted several habitat structures during the survey.

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	0%
Moderate V-shape	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.1	VWI Range:	1.5 - 3

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	741	2,497	0
Secondary Channel	78	121	3
Off-Channel Units	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 3.6	Width: 5.8	7.9 (5.4 - 11.5)	7.4 (7.4 - 7.4)
Depth: 0.24	Height: 0.3	0.6 (0.6 - 0.6)	1.0 (0.95 - 0.95)

W:D ratio: 19.2
 Stream Flow Type: LF
 Average Unit Gradient: 3.6%
 Water temperature (°C): 10.0 - 10.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 5.7
 Habitat Units/100m (primary channel length): 6.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	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:	15%	Reach avg: 86%
Undercut Banks:	6%	Range: 72 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	256	34.6
Volume (m ³):	374	50.6
Key pieces (>=12m x 0.60m):	6	0.8

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

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

9/19/2006

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	2	33	4.5	0.10	142	64	0	5	25	35	35	0
DRY CHANNEL	2	60	1.5	0.00	67	16	0	8	60	30	3	0
POOL-LATERAL SCOUR	11	131	3.6	0.55	464	35	6	22	36	20	8	7
POOL-PLUNGE	5	37	4.7	0.62	155	10	7	24	32	12	4	21
PUDDLED UNIT	1	18	3.0	0.01	54	4	5	20	60	10	5	0
RAPID/BEDROCK	1	29	3.3	0.10	93	9	0	0	10	10	10	70
RAPID/BOULDERS	8	218	3.4	0.10	748	263	0	3	33	37	19	9
RIFFLE	8	276	2.9	0.08	818	98	0	8	45	36	7	4
STEP/BEDROCK	2	4	2.0	0.05	6	0	0	0	0	0	0	100
STEP/BOULDERS	1	3	4.0	0.10	10	16	0	0	20	30	50	0
STEP/COBBLE	3	8	5.0	0.05	39	19	0	3	40	43	13	0
STEP/LOG	3	5	5.3	0.02	24	0	7	20	47	27	0	0
Total:	47	819	3.6	0.24	2,618	534	Avg: 3	12	36	27	11	12

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	168	3.9	0.57	619	23.64%	45	7.3
Glides	0	0			0	0.00%	0	0.0
Riffles	8	276	2.9	0.08	818	31.22%	98	12.0
Rapids	9	247	3.4	0.10	841	32.11%	272	32.4
Cascades	2	33	4.5	0.10	142	5.42%	64	45.1
Step/Falls	9	18	4.3	0.05	78	2.98%	35	44.9
Dry	3	78	2.0	0.00	121	4.62%	20	16.5
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	16	19.5	21.6
Pools >=1m deep:	1	1.2	1.4
Complex pools (LWD pieces>=3):	8	9.8	10.8
Pool frequency (channel widths/pool):	8.9		
Residual pool depth (avg):	0.46		

Survey Date 9/19/2006
Report Date: 3/5/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	366
Total conifers/1000 ft	61
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	0.0	0.0	0.7	0.0	0.7
15-30cm	0.0	0.3	0.3	1.7	0.0	1.3	0.3	3.3
30-50cm	0.0	1.3	0.3	0.3	0.3	0.3	0.7	2.0
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	0.0	1.7	0.7	2.0	0.3	2.3	0.3	2.0

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	75	73	70
Shrub cover	52	16	16
Grass/forb cover	43	52	68

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 (%)	45	33	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	366
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

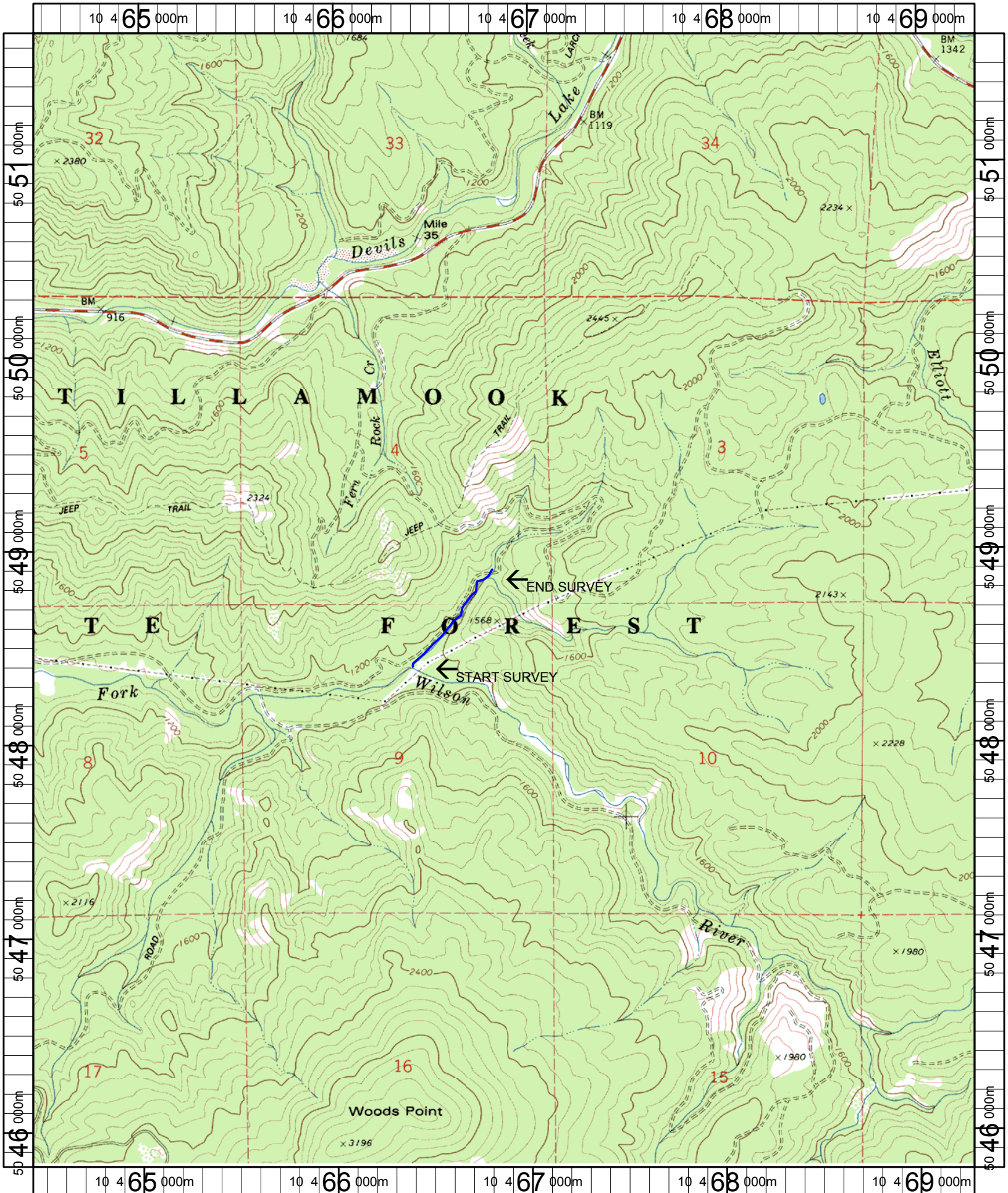
Diameter class (cm)	Zones 1-3 <u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	0.7
15-30cm	0.3	3.3
30-50cm	0.7	2.0
50-90cm	0.0	0.0
>90cm	0.0	0.0

Comment Summary

Restoration Monitoring Sites 2006

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SC	00	2		H=0.60M	
2	RB	01	52	HS, RF		
3	PD	02	52	HS		
5	SB	00	68		H=0.50M	
7	RI	00	126	HS		
8	RI	00	169	HS		
11	SL	00	195.5	PN	H=0.95M	
13	RI	00	215.5	SS/	RIPARIAN #1	T=10.0C AT 11:00
20	RB	01	296.5	EA/		
23	SR	00	311		H=1.20M	
24	RI	00	332	EA/		
26	SC	00	349.5		H=0.40M	
28	SL	00	355		H=0.60M	
31	LP	00	403		RIPARIAN #2	
36	SR	00	536		H=0.80M	
39	SC	00	571.5		H=0.35M	
41	SL	00	580		H=0.70M	
42	RB	00	617	EA/, WL	RIPARIAN #3	RSN
47	RI	00	740.5		END SURVEY	



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