

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

STREAM: Devils Lake Fork Upper Wilson River (NC-133)
BASIN: Wilson River
SURVEY TYPE: Post-Tx
DATE: March 13, 2008
SURVEY CREW: Sharon Tippery, Matt Weeber
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 3.0 km²
USGS MAPS: Roaring Creek
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Devils Lake Wilson River habitat survey extended 507 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.9 (range: 2-4). Land use for the reach was second growth timber (15-30cm dbh) and young trees (3-15cm dbh). The average unit gradient was 2.6 percent. Rapids (36%), scour pools (29%) and riffles (25%) dominated stream habitat. Cobble (33%) and gravel (27%) dominated stream substrate. Wood volume was 23.8m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

Minimal beaver activity was noted in the survey.

**OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY**

**DEVILS LAKE FORK UPPER
GCG: 1-NC SITE ID: 133**

Survey Date: 3/13/2008

Report Date: 5/6/2008

T01N-R05W-S08NW

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	2.9	VWI Range:	2 - 4

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	507	2,101	0
Secondary	111	187	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 3.4	Width: 5.4	7.9 (6 - 12)	8.2 (8 - 8.3)
Depth: 0.42	Height: 0.4	0.8 (0.7 - 1)	1.1 (1.1 - 1.1)

W:D ratio: 13.5

Stream Flow Type: HF

Average Unit Gradient: 2.6%

Water temperature (°C): 4.0 - 4.0

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 9.1

Habitat Units/100m (primary channel length): 11.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	C30	D15

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	122	24.1
Volume (m ³):	121	23.8
Key pieces (>=12m x 0.60m):	6	1.2

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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/BEDROCK	1	18	2.0	0.20	36	0	0	0	5	29	0	67
CASCADE/BOULDERS	2	24	1.6	0.16	40	0	0	0	20	50	30	0
POOL-BACKWATER	3	10	1.8	0.48	20	0	49	33	10	5	0	3
POOL-ISOLATED	1	6	1.8	0.20	11	0	40	40	10	10	0	0
POOL-LATERAL SCOUR	14	131	3.2	0.70	420	0	8	24	34	27	5	2
POOL-PLUNGE	2	18	4.8	0.93	86	0	7	10	24	32	24	3
POOL-STRAIGHT SCOUR	5	43	4.0	0.89	172	0	10	20	22	36	11	0
RAPID/BEDROCK	1	22	10.0	0.25	220	0	5	5	18	18	0	55
RAPID/BOULDERS	9	173	3.3	0.21	616	0	1	5	28	45	20	2
RIFFLE	11	151	2.9	0.16	584	0	7	15	43	33	1	1
STEP/BOULDERS	1	4	4.8	0.20	19	0	0	0	10	40	50	0
STEP/COBBLE	3	16	3.6	0.17	52	0	0	2	8	70	13	7
STEP/LOG	3	2	6.0	0.09	13	0	60	17	17	7	0	0
Total:	56	617	3.4	0.42	2,289	0	Avg: 11	15	27	33	9	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	4	16	1.8	0.41	31	1.33%	0	0.0
Scour Pools	21	192	3.6	0.77	678	29.61%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	11	151	2.9	0.16	584	25.53%	0	0.0
Rapids	10	195	4.0	0.22	836	36.51%	0	0.0
Cascades	3	42	1.7	0.17	76	3.32%	0	0.0
Step/Falls	7	22	4.8	0.14	85	3.70%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

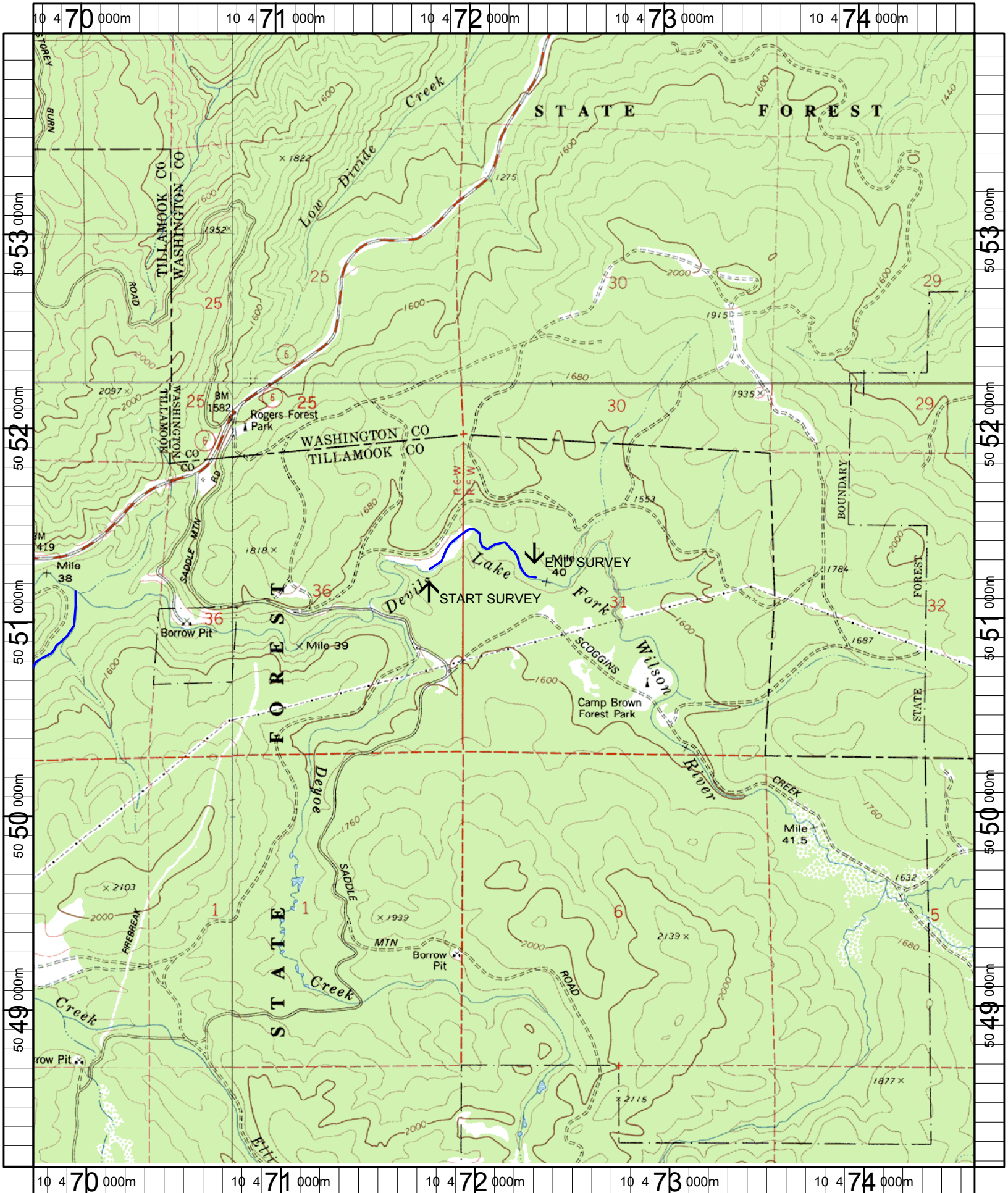
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	Total	# / Km	# / Km
All Pools:	25	40.5	49.4
Pools >=1m deep:	3	4.9	5.9
Complex pools (LWD pieces>=3):	2	3.2	3.9
Pool frequency (channel widths/pool):	4.6		
Residual pool depth (avg):	0.54		

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 133 STREAM: DEVILS LAKE FORK UPPER

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
7	LP	02	36.9	BV	FRESH CHEWING
13	RI	01	57.9		HARDPAN
18	PP	00	92.7		HARDPAN
21	RI	01	141.4		WIDE BRAIDED CHANNEL
22	BW	10	141.4		HARDPAN
26	SC	00	170.9	/SS	
28	RB	01	210.2	SS/, /TJ	
29	RB	11	210.2		ACW=1.1
35	CR	02	251		OVER HARDPAN
36	RR	01	273	TJ/	RR/RI OVER HARDPAN, MULT UNDEFINED BRAIDED CH, WIDE FP (>20M), WOOD
37	CB	11	273		ACW=1.6
39	RI	00	302.3	SS/	
43	RB	00	345.9	/SS	
44	LP	00	355.4		HARDPAN
46	LP	00	378		HARDPAN



Name: ROARING CREEK
 Date: 1/19/2006
 Scale: 1 inch equals 2000 feet

Location: 10 472161 E 50511103 N
 Caption: DEVILS LAKE FORK WILSON RIVER RESTORATION SITE - WILSON BASIN