

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

STREAM: Devils Lake Fork Wilson River (Upper) (N-133)  
BASIN: Wilson River  
SURVEY TYPE: Post-Tx  
DATE: July 26, 2003  
SURVEY CREW: Dave Stewart, Ben Walczak  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 69.9 km<sup>2</sup>  
USGS MAPS: Roaring Creek  
ECOREGION: Coast Range Volcanic

**GENERAL DESCRIPTION:**

The Devils Lake Fork Wilson River habitat survey extended 499 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.1 (range: 1.5-3.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 3.6 percent. Rapids (50%) and riffles (33%) dominated stream habitat. Gravel (56%) and cobble (24%) dominated stream substrate. Wood volume was very high at 40.9 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

T01N-R06W-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 2.1		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	499	1,489	0
Secondary	64	100	3

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.2	Width	10.1	14.8	9.7
Depth	0.14	Height	0.4	0.7	0.9
		W:D ratio	31.4	Entrenchment	1.7

Stream Flow Type:	LF	Water temp (C):	11.0 - 11.0
Avg. Unit Gradient:	3.6%	Habitat Units/100m:	5.3

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	47%	Reach avg: 94%
Undercut Banks:	14%	Range: 55 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	92	18.4
Volume (m <sup>3</sup> ):	204	40.9
Key pieces (>=10m x 0.60m):	14	2.8

**OREGON DEPARTMENT OF FISH AND WILDLIFE    DEVILS LAKE FORK UPPER POST-TX (N-133)**

**HABITAT INVENTORY**

Report Date: 12/17/03

Survey Date:

7/26/03

<b>REACH 1</b>		<b>T01N-R06W-S08NW</b>					<b>REACH 1</b>						
<b>HABITAT DETAIL</b>													
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	Cbl	Bldr	Bdrk	
DRY CHANNEL	1	12	1.6	0.00	20	0	0	5	48	48	0	0	
POOL-LATERAL SCOUR	5	47	3.2	0.43	154	0	17	14	49	21	0	0	
PUDDLED UNIT	2	42	1.8	0.10	76	0	15	15	65	5	0	0	
RAPID/BOULDERS	14	306	2.6	0.10	801	4	6	7	50	31	3	3	
RIFFLE	7	156	3.2	0.08	524	1	4	6	68	20	2	0	
STEP/LOG	1	1	16.0	0.01	16	0	5	5	85	5	0	0	
<b>Total:</b>	<b>30</b>	<b>564</b>	<b>3.2</b>	<b>0.14</b>	<b>1,589</b>	<b>5</b>	<b>Avg 8</b>	<b>8</b>	<b>56</b>	<b>24</b>	<b>2</b>	<b>1</b>	

<b>HABITAT SUMMARY</b>										64
Habitat Group	Number 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	0	0			0	0.00%	0	0.0		
Scour Pools	5	47	3.2	0.43	154	9.66%	0	0.0		
Glides	0	0			0	0.00%	0	0.0		
Riffles	7	156	3.2	0.08	524	32.96%	1	0.2		
Rapids	14	306	2.6	0.10	801	50.37%	4	0.5		
Cascades	0	0			0	0.00%	0	0.0		
Step/Falls	1	1	16.0	0.01	16	1.01%	0	0.0		
Dry	3	54	1.7	0.07	95	6.00%	0	0.0		
Culverts	0	0			0	0.00%	0	0.0		

<b>POOL SUMMARY</b>		
	<u>Total</u>	<u># / Km</u>
All Pools:	5	8.9
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	3	5.3
Pool frequency (channel widths/pool):	11.1	
Residual pool depth (avg):	0.37	

**STREAM SUMMARY**

**DEVILS LAKE FORK UPPER POST-TX (N-133)**

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
30	564	3.2	0.14	1,589	8	8	56	24	2	1	5

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	154	9.66%
Glides	0	0.00%
Riffles	524	32.96%
Rapids	801	50.37%
Cascades	0	0.00%
Step/Falls	16	1.01%
Dry	95	6.00%
Culverts	0	0.00%

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1	REACH 1
<b>Summary of Riparian Zone (0-30m)    3 transects</b>	
Total hardwoods/1000	874
Total conifers/1000 ft	711
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	0.0	0.7	2.7	0.0	0.0	0.7	2.7
15-30cm	0.0	5.3	1.3	1.3	2.3	0.0	3.7	6.7
30-50cm	1.3	3.7	1.7	1.0	3.7	0.0	6.7	4.7
50-90cm	0.3	0.3	0.3	0.0	0.0	0.0	0.7	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.7	9.3	4.0	5.0	6.0	0.0	3.9	4.8

**Canopy closure and ground cover**

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	95	94	93
Shrub cover	14	19	24
Grass/forb cover	73	70	63

**Predominant landform in each zone**

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	50	67	100
High terrace	0	0	0
Low terrace	50	33	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 (%)	14	35	48

**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	874
Total conifers/1000 ft	711
Total conifers >20" dbh/1000 ft	41
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	0.7	2.7
15-30cm	3.7	6.7
30-50cm	6.7	4.7
50-90cm	0.7	0.3
>90cm	0.0	0.0

**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			
10	RT	3	HS	30	80	40	50	Conifer			1				
								Hardwood							
10	LF	1	HS	6	95	10	70	Conifer			1	1			
								Hardwood							
10	RT	1	HS	60	95	40	50	Conifer			2				
								Hardwood			1				
10	LF	2	HS	60	95	10	70	Conifer			1	1			
								Hardwood							
10	RT	2	HS	30	90	40	55	Conifer			1				
								Hardwood							
10	LF	3	HS	60	95	10	70	Conifer			2				
								Hardwood							
17	RT	2	HS	30	95	20	70	Conifer	2	2					HIKING TRAIL
								Hardwood							
17	LF	2	LT	0	95	5	80	Conifer							
								Hardwood	8	2					
17	LF	1	LT	0	95	5	85	Conifer							
								Hardwood		7	2				
17	LF	3	HS	40	95	5	70	Conifer		3	2				
								Hardwood							
17	RT	1	LT	0	95	5	70	Conifer							
								Hardwood		4	2				
17	RT	3	HS	50	95	30	60	Conifer		4					
								Hardwood							
22	RT	3	HS	20	95	10	85	Conifer			3				
								Hardwood							
22	RT	1	LT	0	95	5	90	Conifer							
								Hardwood		5	4				
22	LF	2	HS	90	95	25	70	Conifer		2	3				
								Hardwood							
22	LF	3	HS	90	95	50	45	Conifer			3				
								Hardwood							
22	LF	1	HS	20	95	20	70	Conifer			1				
								Hardwood			2	1			
22	RT	2	LT	0	95	15	75	Conifer							
								Hardwood		2	3				

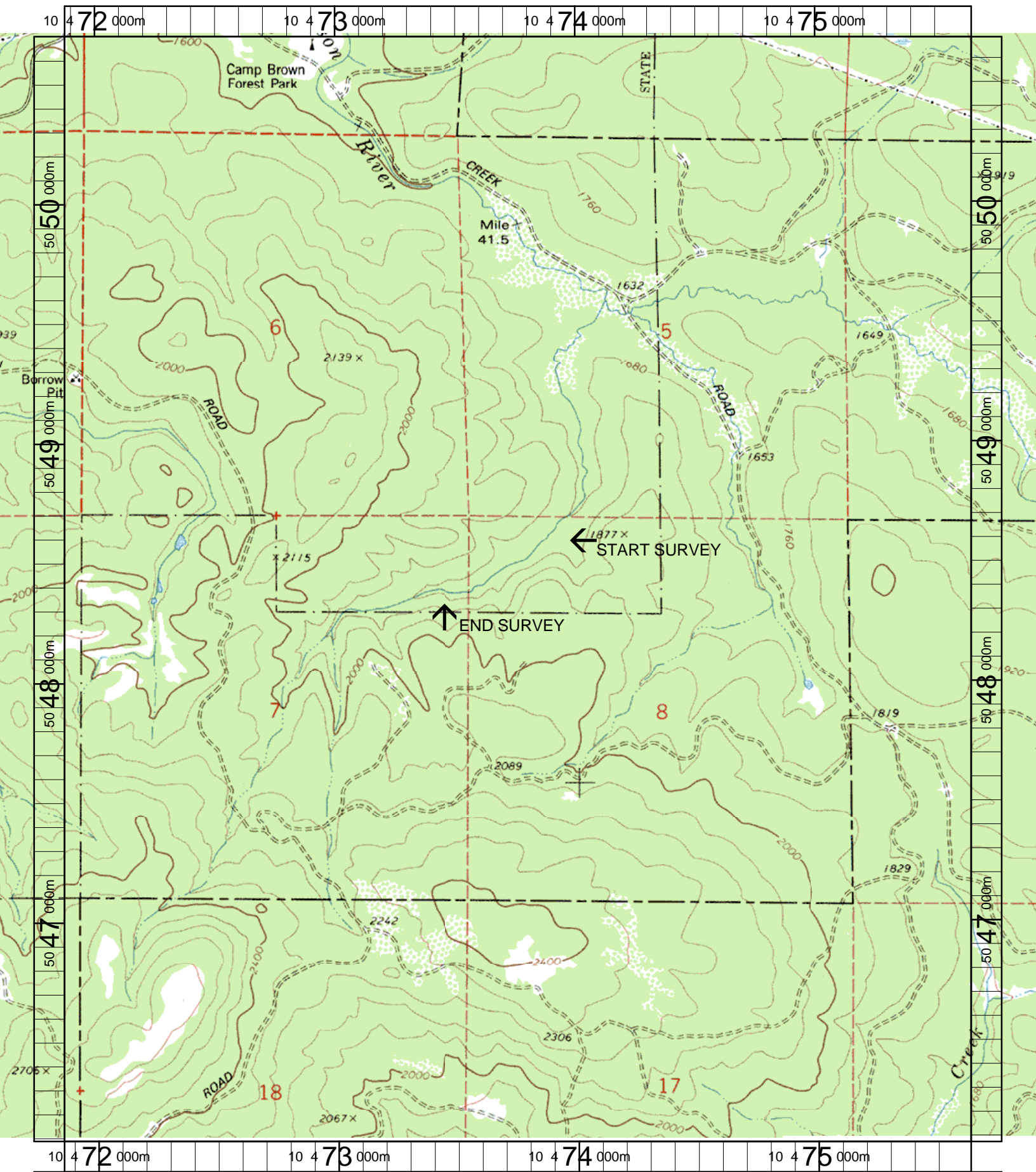
# Comment Summary

## Oregon Plan Monitoring Sites 2002

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SL	01	1		H=.70M	10T 0473864 5048599
2	RI	01	5.5	HS		
3	LP	01	19.3	HS		
6	RI	00	45.7	WF/, HS		
7	RI	00	70.7	HS		
9	LP	00	98.4	HS		
10	RI	00	123.4		RIP T #1	RIP T
13	RB	01	186	/RJ		
14	RB	11	186			TRIB 1
15	RB	00	211	HS		
16	RB	00	236	HS		
17	RB	00	261	HS	RIP T #2	RIP T
22	RB	00	387.6		RIP T#3	RIP T





Name: ROARING CREEK  
 Date: 3/20/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 473749 E 5048392 N  
 Caption: DEVILS LAKE FORK (UPPER) RESTORATION SITE - WILSON BASIN