

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

STREAM: Whiskey Creek (MC-155)  
BASIN: Siletz River  
SURVEY TYPE: Post-Tx  
DATE: March 7, 2006  
SURVEY CREW: Paul Jacobsen, Brian Bangs  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 2.8 km<sup>3</sup>  
USGS MAPS: Valsetz  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Whiskey Creek habitat survey extended 589 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 9.6 (range: 6.0-15.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.5 percent. Scour pools (71%) dominated stream habitat. Gravel (46%) and sand (43%) dominated stream substrate. Wood volume was low at 19.2 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.

Stream Whiskey Creek (MC-155)

Basin Siletz River

Treatment Large Wood

	ODFW Benchmark		Pre 2/5/98	Post 2/1/99	Post 3/7/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	73.7	<b>53.6</b>	<b>78.7</b>		
Number of Pools			25	<b>15</b>	25		
Deep Pools/km (>1.0 m)			20.1	<b>16.2</b>	22.6		
% Off-Channel			4.1	6.1	3.4		
LWD – Pieces/100m	>20	<10	14.0	<b>26.4</b>	16.5		
LWD – Volume/100m	>30	<20	18.8	<b>30.3</b>	19.2		
LWD – Key Pieces/100m	>3	<1	0.6	0.6	0.8		
Large Wood Jams/km			4.2	<b>6.2</b>	5.1		
% Riffle Fines	<10	>20	25	56	21		
% Riffle Gravel	>35	<15	75	43	76		
% Bedrock			0	0	0		

**Bold** is noticeable change

Comments: The treatment was large wood added to the reach in complex jams. Initially, large wood was much higher after treatment. The last survey indicated that wood is now just slightly higher than pre-treatment conditions, suggesting that wood is leaving the system without additional recruitment. Pool area is slightly higher than pre-treatment, as are deep pools. Substrate has been variable but closely matches pre-treatment conditions.

REACH 1

T09S-R08W-S18NE

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	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	9.6	VWI Range:	6 - 15

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
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	589	2,473	0
Secondary Channel	0	0	0
Off-Channel Units	75	88	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 3.9	Width: 7.0	22.8 ( 7 - 58 )	22.1 ( 11.2 - 30 )
Depth: 0.70	Height: 0.7	1.3 ( 1.2 - 1.4 )	1.4 ( 1.3 - 1.5 )

W:D ratio: 10.7  
 Stream Flow Type: MF  
 Average Unit Gradient: 0.5%  
 Water temperature (°C): 7.5 - 7.5

Entrenchment (ACW:FPW ratio): 3.1  
 Habitat Units/100m (total channel length): 5.9  
 Habitat Units/100m (primary channel length): 6.6

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	97	16.5
Volume (m <sup>3</sup> ):	113	19.2
Key pieces (>=12m x 0.60m):	5	0.8

OREGON DEPT OF FISH AND WILDLIFE

WHISKEY CREEK POST-TX (2-MC, 155)

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

3/7/2006

REACH 1		T09S-R08W-S18NE					REACH 1					
HABITAT DETAIL												
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
POOL-ALCOVE	1	43	0.8	0.20	34	0	30	70	0	0	0	0
POOL-BACKWATER	1	4	2.3	0.60	10	0	15	80	5	0	0	0
POOL-DAMMED	1	20	5.5	1.00	110	0	10	70	20	0	0	0
POOL-ISOLATED	2	18	2.2	0.45	39	0	40	60	0	0	0	0
POOL-LATERAL SCOUR	19	410	4.4	1.06	1,758	0	9	46	43	1	0	1
POOL-PLUNGE	1	9	7.5	1.65	64	0	15	60	25	0	0	0
RAPID/BOULDERS	1	10	0.5	0.03	5	0	5	30	60	5	0	0
RIFFLE	9	138	3.7	0.24	491	0	3	18	76	2	1	0
STEP/COBBLE	2	10	3.9	0.23	40	0	0	25	75	0	0	0
STEP/LOG	2	2	4.3	0.18	10	0	3	80	18	0	0	0
<b>Total:</b>	<b>39</b>	<b>664</b>	<b>3.9</b>	<b>0.70</b>	<b>2,561</b>	<b>0</b>	<b>Avg: 9</b>	<b>43</b>	<b>46</b>	<b>1</b>	<b>0</b>	<b>0</b>

HABITAT SUMMARY									
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	5	85	2.6	0.54	193	7.54%	0	0.0	
Scour Pools	20	419	4.5	1.09	1,822	71.16%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	9	138	3.7	0.24	491	19.16%	0	0.0	
Rapids	1	10	0.5	0.03	5	0.20%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	4	12	4.1	0.20	50	1.95%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

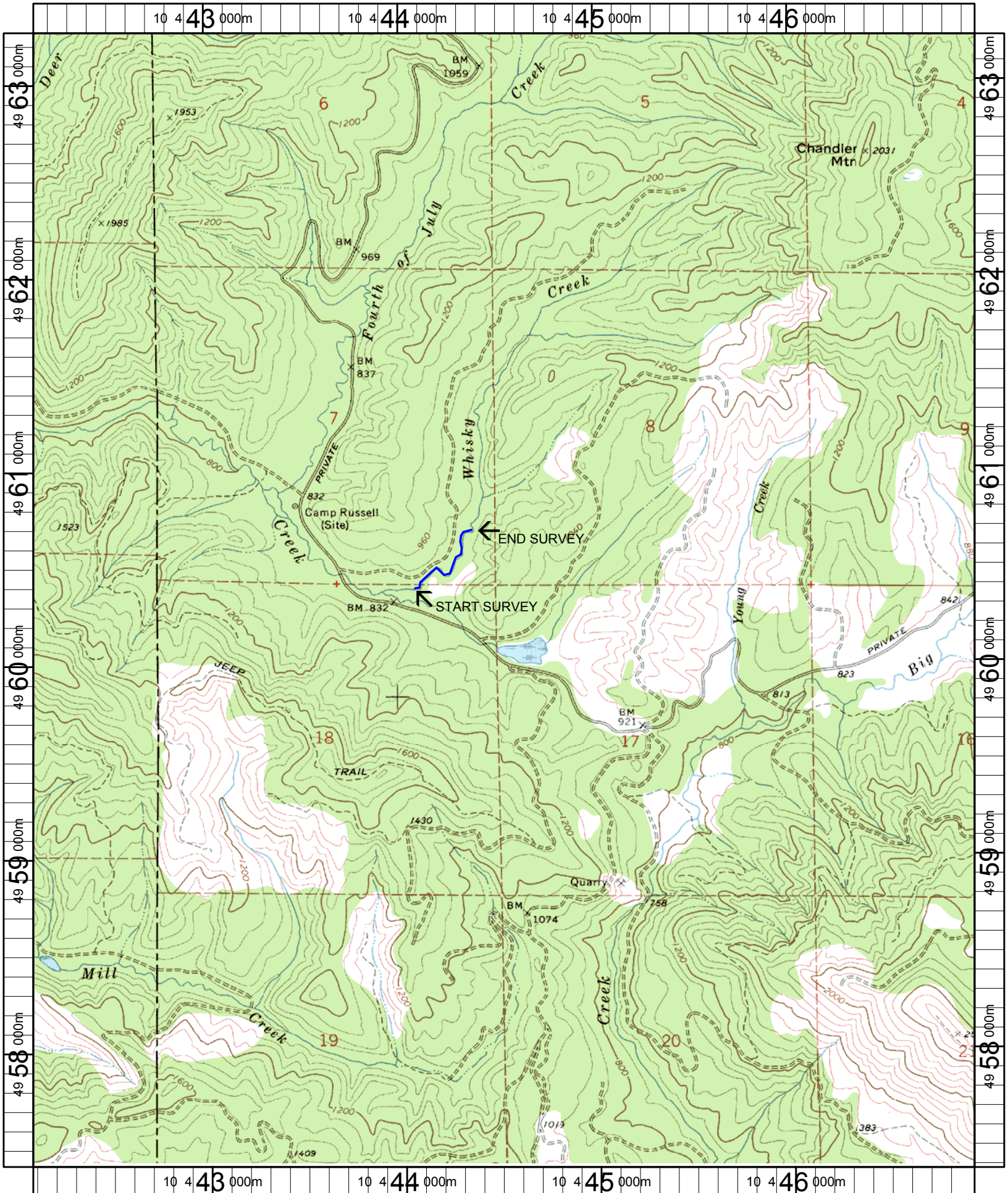
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	25	37.7	42.5
Pools >=1m deep:	15	22.6	25.5
Complex pools (LWD pieces>=3):	13	19.6	22.1
Pool frequency (channel widths/pool):	3.8		
Residual pool depth (avg):	0.78		

# Comment Summary

## Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC**      SITE ID: **155**      **WHISKEY CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	PP	00	8.5	BV		
2	SL	00	10.1	HS	4 LOGS AND ACCUM WOOD	
3	DP	00	30.1	BV		
4	SL	00	30.6	DJ		
7	LP	00	79	DJ		
10	LP	01	178.5	SS,/TJ/,HS	ONE LOG AND YELLOW TAG	
11	RB	11	178.5		LEFT TRIB, T = 8.5	
13	LP	00	215	WL	WL TRAIL SALMON CARCASS	
21	LP	01	321.5	BV, HS	TWO LOGS	
24	LP	00	339.6	HS	TWO LOGS	
26	AL	10	363.6	BV		
29	LP	00	425.1	DJ,/SS, HS	TWO LOGS, TAG SAYS HS NO. 5	
31	LP	00	471.1	DJ		
32	RI	00	486.1	HS	FOUR LOGS, LOGGING CABLE	
34	RI	00	510.1		WINTER 99 END FLAG	
35	LP	01	543.1		TROUT	
38	LP	00	576.1	HS	ONE LOG ON BANK, WINTER WREN	



Name: VALSETZ  
 Date: 1/23/2006  
 Scale: 1 inch equals 2000 feet

Location: 10 44523 E 4960325 N  
 Caption: WHISKEY CREEK RESTORATION SITE - SILETZ BASIN