ODFW AQUATIC INVENTORY PROJECT

OREGON PLAN FOR SALMON & WATERSHEDS

STREAM RESTORATION HABITAT REPORT

STREAM:	Sunshine Creek (MC-153)
BASIN:	Siletz River
SURVEY TYPE:	Post-Tx
DATE:	March 7, 2006
SURVEY CREW:	Paul Jacobsen, Brian Bangs
REPORT PREPARED BY:	Paul Jacobsen
BASIN AREA:	5.6 km^3
USGS MAPS:	Valsetz
ECOREGION:	Coast Range Sedimentary

GENERAL DESCRIPTION:

The Sunshine Creek habitat survey extended 515 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 12.8 (range: 8.0-20.0). 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 (82%) dominated stream habitat. Gravel (45%) and sand (44%) dominated stream substrate. Wood volume was low at 13.2 m^3/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

Stream Sunshine Creek (MC-153)

Basin Siletz River

Treatment Large Wood

	ODFW Benchmark		Pre 3/19/98	Post 2/17/99	Post 3/7/06		
Habitat Variable	**Desirable**	**Undesirable**					
% Pool Area	>35%	<10%	77.1	**52.1**	81.8		
Number of Pools			15	13	16		
Deep Pools/km (>1.0 m)			16.2	**21.6**	17.9		
% Off-Channel			0.2	3.2	1.1		
LWD – Pieces/100m	>20	<10	10.6	6.1	13.2		
LWD – Volume/100m	>30	<20	13.0	12.3	13.2		
LWD – Key Pieces/100m	>3	<1	1.2	0.8	0.6		
Large Wood Jams/km			0	**4.2**	**5.8**		
% Riffle Fines	<10	>20	26	54	33		
% Riffle Gravel	>35	<15	74	47	65		
% Bedrock			0	0	0		

Bold is noticeable change

Comments: The treatment was large wood assembled in complex jams. Wood pieces and volume are higher when compared to right after treatment, but very similar to pre-treatment conditions. Key wood pieces have declined through time. However, wood jams have increased when compared to pre-treatment conditions. Pool area is slightly higher, but the number of pools and deep pools mimics pre-treatment conditions.

OREGON DEPT OF FISH AND WILDLIFE **SUNSHINE CREEK POST-TX (2-MC, 153)**

HABITAT INVENTORY Report Date: 12/6/2006 Survey Date: 3/7/2006

REACH 1 **T09S-R08W-S18NE** **REACH 1**

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%

Valley Width Index 12.8 VWI Range: 8 - 20

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

Type	Length (m)	Area (m2)	Dry Units
Primary Channel	515	2,990	0
Secondary Channel	0	0	0
Off-Channel Units	43	33	0

Channel Dimensions (m)

Wetted		Active		Floodprone *n* = 5		First Terrace *n* = 4	
Width:	5.1	Width:	10.4	28.3	(11 - 43)	31.5	(14 - 46)
Depth:	0.75	Height:	0.8	1.6	(1.4 - 1.8)	1.7	(1.5 - 2)

W:D ratio: 13.2
Entrenchment (ACW:FPW ratio): 2.7
Stream Flow Type: MF
Habitat Units/100m (total channel length): 4.5
Average Unit Gradient: 0.5%
Habitat Units/100m (primary channel length): 4.9
Water temperature (°C): 7.0 - 7.0

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	YT	ST
Riparian Vegetation:	D30	S

Bank Condition and Shade

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

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	68	13.2
Volume (m^3):	68	13.2
Key pieces (>=12m x 0.60m):	3	0.6

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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^2)	Large Boulders (#>0.5m)		Substrate Percent Wetted Area S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BOULDERS	2	27	0.5	0.10	14	0		15	80	5	0	0	0
POOL-LATERAL SCOUR	16	414	6.0	1.07	2,473	0		7	49	41	2	1	0
RAPID/BOULDERS	1	13	1.1	0.10	14	0		0	10	60	20	10	0
RIFFLE	5	96	4.9	0.20	489	0		4	29	65	2	0	0
STEP/COBBLE	1	8	4.1	0.30	33	0		0	10	85	5	0	0
Total:	25	557	5.1	0.75	3,023	0	**Avg:**	7	44	45	2	1	0

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m^2)	Wetted Area Percent	Large Boulders Number	Large Boulders (# / $100m^2$)
Dammed & BW Pools	0	0			0	0.00%	0	0.0
Scour Pools	16	414	6.0	1.07	2,473	81.80%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	5	96	4.9	0.20	489	16.19%	0	0.0
Rapids	1	13	1.1	0.10	14	0.47%	0	0.0
Cascades	2	27	0.5	0.10	14	0.46%	0	0.0
Step/Falls	1	8	4.1	0.30	33	1.09%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

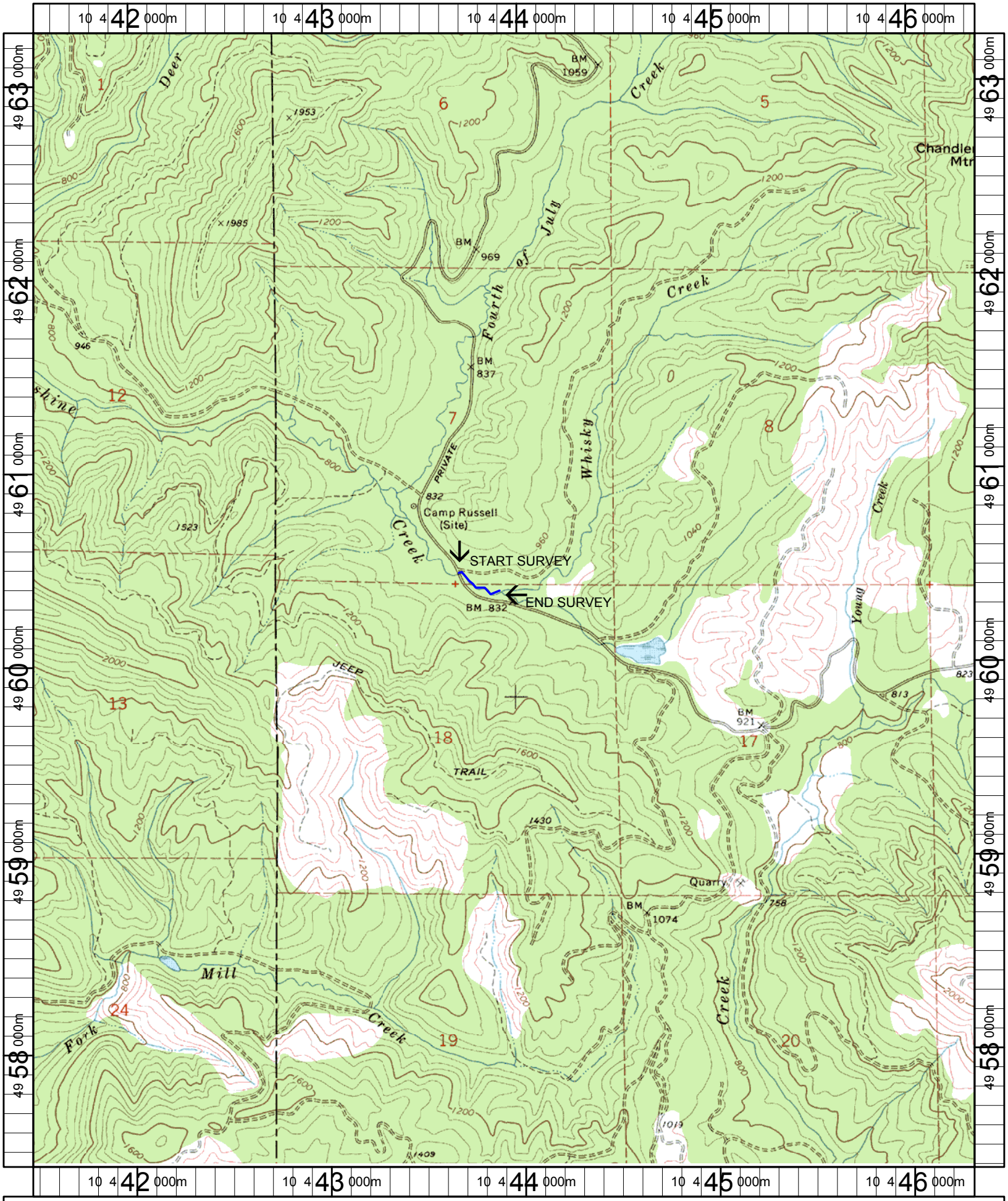
POOL SUMMARY

	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	16	28.7	31.1
Pools >=1m deep:	10	17.9	19.4
Complex pools (LWD pieces>=3):	8	14.4	15.5
Pool frequency (channel widths/pool):	3.3		
Residual pool depth (avg):	0.73		

Comment Summary
Restoration Monitoring Sites 2006

MONITORING AREA: 2-MC SITE ID: 153 SUNSHINE CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	35	BC, CS/CS	RIPRAP	
2	LP	00	76.8	BV, WL	DEER TRAIL	
4	RI	00	116.4		WINTER WREN, SKUNK CABBAGE	
5	LP	01	141.9	HS, TJ/	SINGLE LOG	
6	CB	11	141.9		LEFT TRIB, T = 8	
9	LP	01	198.9	DJ, /TJ		
10	CB	11	198.9		RIGHT TRIB, T = 7.0	
12	LP	00	248.4	SS/		
13	LP	00	272.4	HS	SINGLE LOG	
15	RI	00	299	SS/	FRT	
16	LP	00	339	BV	CHICKADEES, DOWNY WOODPECKER	
19	LP	01	388.6	TJ/		
20	RI	11	388.6		LEFT TRIB, T = 8.5	
21	LP	00	421.1	HS	PVC STAKE	
23	LP	00	454.9	BV		
24	LP	00	501.9	HS, BV,/TJ		
25	RB	00	514.9		T = 7.5	



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

Location: 10 443910 E 4960330 N
Caption: SUNSHINE CREEK RESTORATION SITE - SILETZ BASIN