

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: July 17, 2006
SURVEY CREW: Brian Cannon, Paul Jacobsen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 5.6 km²
USGS MAPS: Valsetz
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Sunshine Creek habitat survey extended 495 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 16.8 (range: 9.0-20.0). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 0.3 percent. Scour pools (86%) dominated stream habitat. Gravel (44%) and sand (41%) dominated stream substrate. Wood volume was low at 11.3 m³/100m.

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

T09S-R08W-S07SE

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 16.8		VWI Range: 9 - 20	

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	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	495	2,126	0
Secondary Channel	21	25	1
Off-Channel Units	47	75	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.2	Width: 7.8	9.2 (8 - 12)	12.7 (9.9 - 15.5)
Depth: 0.50	Height: 0.5	1.0 (0.9 - 1.2)	1.5 (1.2 - 1.7)

W:D ratio: 15.5

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: LF

Habitat Units/100m (total channel length): 6.1

Average Unit Gradient: 0.3%

Habitat Units/100m (primary channel length): 6.9

Water temperature (°C): -

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	11%	Reach avg: 71%
Undercut Banks:	14%	Range: 25 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	55	11.1
Volume (m ³):	56	11.3
Key pieces (>=12m x 0.60m):	2	0.4

OREGON DEPT OF FISH AND WILDLIFE

SUNSHINE CREEK POST-TX (2-MC, 153)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

7/17/2006

REACH 1		T09S-R08W-S07SE					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	1	7	0.2	0.01	1	0	30	70	0	0	0	0
DRY UNIT	1	10	1.5	0.00	14	0	5	25	70	0	0	0
POOL-BACKWATER	3	21	2.8	0.23	58	0	12	45	43	0	0	0
POOL-ISOLATED	2	6	2.1	0.30	13	0	33	53	15	0	0	0
POOL-LATERAL SCOUR	17	409	4.6	0.88	1,917	5	13	45	40	1	0	2
PUDDLED UNIT	1	6	0.1	0.01	1	0	30	70	0	0	0	0
RAPID/BOULDERS	1	8	0.4	0.10	3	1	5	15	65	5	10	0
RIFFLE	5	86	2.2	0.09	197	0	8	28	63	1	0	0
STEP/COBBLE	3	11	2.1	0.10	23	0	5	25	70	0	0	0
Total:	34	562	3.2	0.50	2,226	6	Avg: 13	41	44	1	0	1

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	5	27	2.5	0.26	71	3.17%	0	0.0	
Scour Pools	17	409	4.6	0.88	1,917	86.10%	5	0.3	
Glides	0	0			0	0.00%	0	0.0	
Riffles	5	86	2.2	0.09	197	8.83%	0	0.0	
Rapids	1	8	0.4	0.10	3	0.13%	1	33.3	
Cascades	1	7	0.2	0.01	1	0.06%	0	0.0	
Step/Falls	3	11	2.1	0.10	23	1.04%	0	0.0	
Dry	2	16	0.8	0.01	15	0.67%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	22	39.2	44.5
Pools >=1m deep:	6	10.7	12.1
Complex pools (LWD pieces>=3):	6	10.7	12.1
Pool frequency (channel widths/pool):	3.3		
Residual pool depth (avg):	0.71		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

SUNSHINE CREEK POST-TX
GCG: 2-MC SITE ID: 153

Survey Date 7/17/2006

RIPARIAN ZONE

Report Date: 3/5/2007

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	3190
Total conifers/1000 ft	20
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		Zone 2		Zone 3		Zones 1-3	
	0-10 meters		10 - 20 meters		20 - 30 meters		0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	15.7	0.0	14.0	0.0	9.3	0.0	39.0
15-30cm	0.0	1.0	0.0	1.3	0.3	1.3	0.3	3.7
30-50cm	0.0	0.3	0.0	2.3	0.0	2.3	0.0	5.0
50-90cm	0.0	1.3	0.0	1.0	0.0	1.7	0.0	4.0
>90cm	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.7
Total/100m2	0.0	18.3	0.0	19.0	0.3	15.0	0.1	17.4

Canopy closure and ground cover

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	47		62		70	
Shrub cover	28		36		42	
Grass/forb cover	73		58		50	

Predominant landform in each zone

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		0		0	
High terrace	100		100		83	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	2		2		3	

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	3190
Total conifers/1000 ft	20
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	39.0
15-30cm	0.3	3.7
30-50cm	0.0	5.0
50-90cm	0.0	4.0
>90cm	0.0	0.7

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

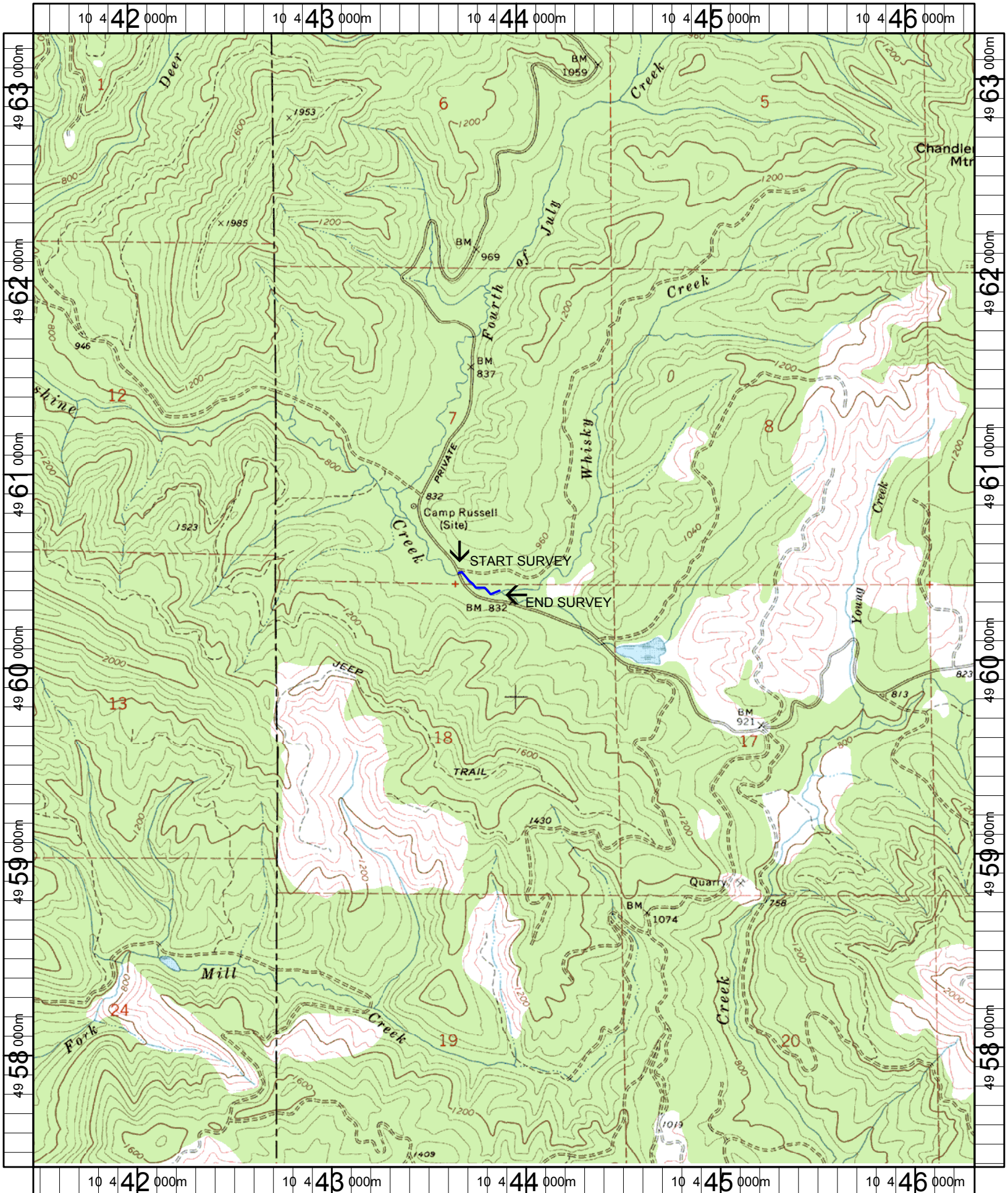
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
5	RT	2	HT	0	85	20	80	Conifer							VINE MAPLE, ELDERBERRY
								Hardwood	4						
5	RT	3	HT	10	95	50	50	Conifer							ELDERBERRY, ALDER
								Hardwood	1	1	1	1			
5	RT	1	HT	2	70	60	40	Conifer							ELDERBERRY
								Hardwood	14						
5	LF	3	HT	2	85	40	60	Conifer							ALDER
								Hardwood	4		1	1			
5	LF	2	HT	2	90	20	80	Conifer							ELDERBERRY, ALDER
								Hardwood	3		1	1			
5	LF	1	HT	5	80	10	90	Conifer							ELDERBERRY, ALDER
								Hardwood	5	1	1	4			
14	RT	2	HT	5	80	50	40	Conifer							ELDERBERRY, ALDER, 10% DUFF
								Hardwood	11			1	1		
14	RT	3	RB	0	60	10	40	Conifer			1				DOUGLAS FIR, ALDER, 50% GRAVEL
								Hardwood	1	2	1				ELDERBERRY
14	LF	1	HT	5	20	10	90	Conifer							
								Hardwood	4	1					
14	LF	2	HT	0	30	85	15	Conifer							ELDERBERRY
								Hardwood	20						
14	LF	3	HT	0	80	80	20	Conifer							ALDER, ELDERBERRY
								Hardwood	6			2	1		
14	RT	1	HT	0	40	10	90	Conifer							ELDERBERRY
								Hardwood	13						
22	RT	2	HT	3	85	40	35	Conifer							ALDER, ELDERBERRY, 25% DUFF
								Hardwood	4	4	6	1			
22	RT	3	HT	5	90	70	30	Conifer							ALDER, ELDERBERRY
								Hardwood	4	1	4	1			
22	LF	3	HT	0	10	0	100	Conifer							ELDERBERRY
								Hardwood	12						
22	LF	2	HT	0	0	0	100	Conifer							NO TREES
								Hardwood							
22	LF	1	HT	0	0	0	100	Conifer							NO TREES
								Hardwood							
22	RT	1	HT	0	70	75	25	Conifer							ELDERBERRY
								Hardwood	11	1					

Comment Summary

Restoration Monitoring Sites 2006

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

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	LP	00	66		START BENEATH BRIDGE	START AT UPSTRM SIDE
2	LP	00	95	WL	FRY, CT-MT,ST,YT	COHO FRY, US, RSN
3	LP	01	132	TJ/, HS	FRY, D30,D3	HS=1 LOG
4	CB	11	132		ACW=0.70M	
5	RI	01	164.5		CT-MT,ST,YT,D30,S	
6	BW	10	164.5	WL	COHO FRY	RSN, COHO FRY
7	BW	10	164.5		COHO	
8	LP	00	179.5	BV, HS	COHO, BV	
9	LP	01	195	HS, TJ/		
10	PD	11	195		ACW=1.0M	
14	LP	00	266.5	HS	CT-MT,ST,YT,D30,S	HS=1 LOG
18	BW	10	299.7		FLIES	
19	LP	00	343.7		COHO FRY	UT
22	LP	01	390.7		CT-MT,ST,YT,D15,S	
25	IP	10	390.7		FRY	
27	LP	00	402.3		COHO FRY	
29	LP	01	432.8	HS, HS		HS = 21 LOGS
32	LP	00	464.1			UT, COHO FRY
33	LP	01	494.6	/TJ	CT-MT,ST,YT,D30,S	END SIGN



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