

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

STREAM: South Sister Creek (U-252)  
BASIN: Smith River  
SURVEY TYPE: Reference  
DATE: January 28, 2004  
SURVEY CREW: Michael Scheu, Jeremiah Bernier  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 30.6 km<sup>2</sup>  
USGS MAPS: Gunter  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The South Sister Creek habitat survey extended 523 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.9 (range: 2.5-11.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.4 percent. Riffles (37%) and scour pools (32%) dominated stream habitat. Bedrock (43%) and gravel (29%) dominated stream substrate. Wood volume was low at 8.8 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T20S-R08W-S13NE

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.9	VWI Range:	2.5 - 11

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	523	2,289	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.5	Width: 7.3	13.1 ( 8.3 - 17.2 )	20.9 ( 13.5 - 27.2 )
Depth: 0.40	Height: 0.5	1.0 ( 0.9 - 1.1 )	2.6 ( 1.2 - 3.5 )

W:D ratio: 14.6                      Entrenchment (ACW:FPW ratio): 1.9  
Stream Flow Type: MF                      Habitat Units/100m (total channel length): 6.5  
Average Unit Gradient: 1.4%                      Habitat Units/100m (primary channel length): 6.5  
Water temperature (°C): 8.0 - 8.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	D15	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):	66	12.6
Volume (m <sup>3</sup> ):	46	8.8
Key pieces (>=12m x 0.60m):	0	0.0

**OREGON DEPARTMENT OF FISH AND WILDLIFE SOUTH SISTER CREEK REFERENCE (U-252)**

**HABITAT INVENTORY**

Report Date: 6/16/2004

Survey Date:

1/28/2004

**REACH 1**

**T20S-R08W-S13NE**

**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
CASCADE/BEDROCK	1	16	7.2	0.10	116	0	0	0	0	0	0	100
POOL-DAMMED	1	20	4.3	0.75	85	0	19	76	5	0	0	0
POOL-LATERAL SCOUR	13	155	4.6	0.62	728	0	2	10	27	26	2	32
RAPID/BEDROCK	4	98	4.3	0.23	413	0	0	0	1	9	18	71
RAPID/BOULDERS	1	8	3.9	0.25	32	0	0	0	10	40	0	50
RIFFLE	11	213	4.1	0.21	851	0	0	0	47	15	2	36
STEP/BEDROCK	1	6	3.9	0.10	23	0	0	0	0	0	0	100
STEP/LOG	2	7	6.2	0.55	41	0	0	0	45	5	0	50
<b>Total:</b>	<b>34</b>	<b>523</b>	<b>4.5</b>	<b>0.40</b>	<b>2,289</b>	<b>0</b>	<b>Avg: 1</b>	<b>6</b>	<b>29</b>	<b>17</b>	<b>4</b>	<b>43</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	1	20	4.3	0.75	85	3.72%	0	0.0
Scour Pools	13	155	4.6	0.62	728	31.80%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	11	213	4.1	0.21	851	37.16%	0	0.0
Rapids	5	106	4.2	0.23	445	19.46%	0	0.0
Cascades	1	16	7.2	0.10	116	5.06%	0	0.0
Step/Falls	3	13	5.4	0.40	64	2.80%	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
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	14	26.8	26.8
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	4	7.7	7.7
Pool frequency (channel widths/pool):	5.1		
Residual pool depth (avg):	0.43		

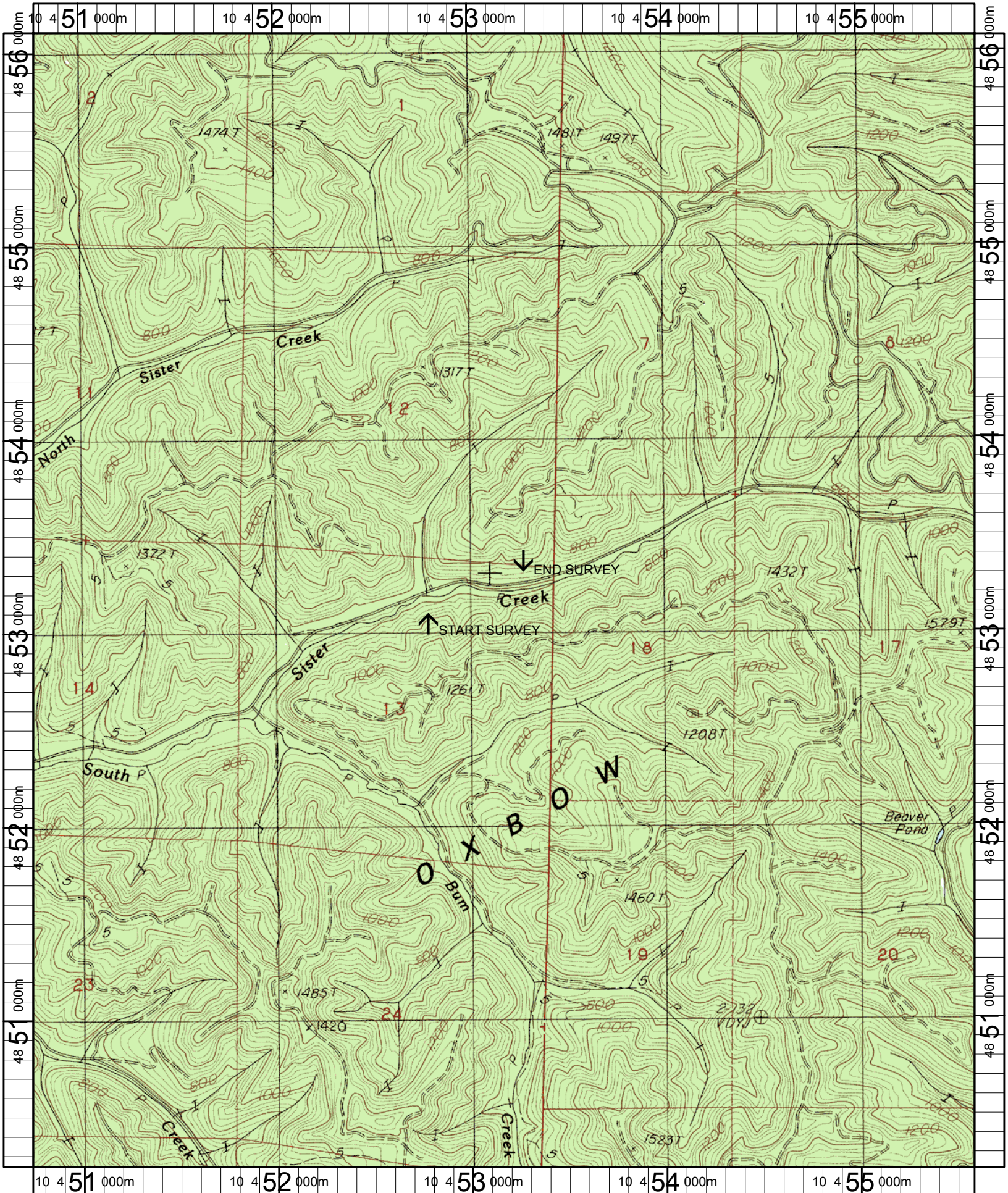
# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: 4-UMP    SITE ID: 252    SOUTH SISTER CREEK REFERENCE

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	20.4		ORANGE 5/23/02 R1 ODF	
3	SL	00	46.1		H=1.0	
5	RI	00	74.9	7	SPAWNING GRAVEL=8	
9	RI	00	137.1		SG=8	
11	RI	00	168.6		SG=6	
14	LP	00	202.9		SG=6	
16	LP	00	230.4		SG=4	
26	RR	00	393.6	/SS		
30	RR	00	472.7		ORANGE #310 R1	
34	RI	00	522.5		NO TH ON DATA SHEET	





Name: GUNTER  
 Date: 8/5/2004  
 Scale: 1 inch equals 2000 feet

Location: 10 453176 E 4853161 N  
 Caption: SOUTH SISTER CREEK (REFERENCE) RESTORATION SITE - SMITH BASIN