

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: February 24, 2005
SURVEY CREW: Brian Bangs, Sheila Davis
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 30.6 km²
USGS MAPS: Gunter
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The South Sister Creek habitat survey extended 544 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.0 (range: 3.0-5.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 2.3 percent. Riffles (41%) and scour pools (33%) dominated stream habitat. Bedrock (31%) and gravel (26%) dominated stream substrate. Wood volume was very low at 9.9 m³/100m.

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	4.0	VWI Range:	3 - 5

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 Channel	544	1,705	0
Secondary Channel	9	14	0
Off-Channel Units	19	17	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.9	Width: 4.1	6.3 (4.5 - 8.8)	9.8 (7.4 - 11.8)
Depth: 0.24	Height: 0.4	0.8 (0.7 - 0.9)	1.8 (0.95 - 2.4)

W:D ratio: 10.5

Entrenchment (ACW:FPW ratio): 1.5

Stream Flow Type: LF

Habitat Units/100m (total channel length): 8.6

Average Unit Gradient: 2.3%

Habitat Units/100m (primary channel length): 9.0

Water temperature (°C): 7.0 - 7.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	D3	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):	87	16.0
Volume (m ³):	54	9.9
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

SOUTH SISTER CREEK REFERENCE (4-UJP, 252)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

4/24/2005

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 ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	1	5	1.9	0.10	9	0	0	0	1	0	0	99
GLIDE	1	12	2.5	0.30	29	0	5	5	5	15	10	60
POOL-BACKWATER	2	19	0.9	0.10	17	0	20	20	35	20	5	0
POOL-LATERAL SCOUR	15	158	3.5	0.49	565	0	15	25	21	8	5	26
RAPID/BEDROCK	3	56	4.2	0.05	238	0	0	5	0	0	0	95
RAPID/BOULDERS	8	72	2.5	0.11	168	0	1	6	42	19	26	7
RIFFLE	16	226	2.7	0.13	631	0	3	7	30	12	10	37
RIFFLE W/ POCKETS	2	23	3.2	0.25	77	0	15	23	33	15	10	5
STEP/LOG	1	1	1.9	0.10	2	0	20	60	20	0	0	0
Total:	49	572	2.9	0.24	1,736	0	Avg: 8	14	26	11	10	31

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	2	19	0.9	0.10	17	0.98%	0	0.0
Scour Pools	15	158	3.5	0.49	565	32.53%	0	0.0
Glides	1	12	2.5	0.30	29	1.68%	0	0.0
Riffles	18	248	2.8	0.14	708	40.78%	0	0.0
Rapids	11	129	3.0	0.10	406	23.37%	0	0.0
Cascades	1	5	1.9	0.10	9	0.53%	0	0.0
Step/Falls	1	1	1.9	0.10	2	0.13%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

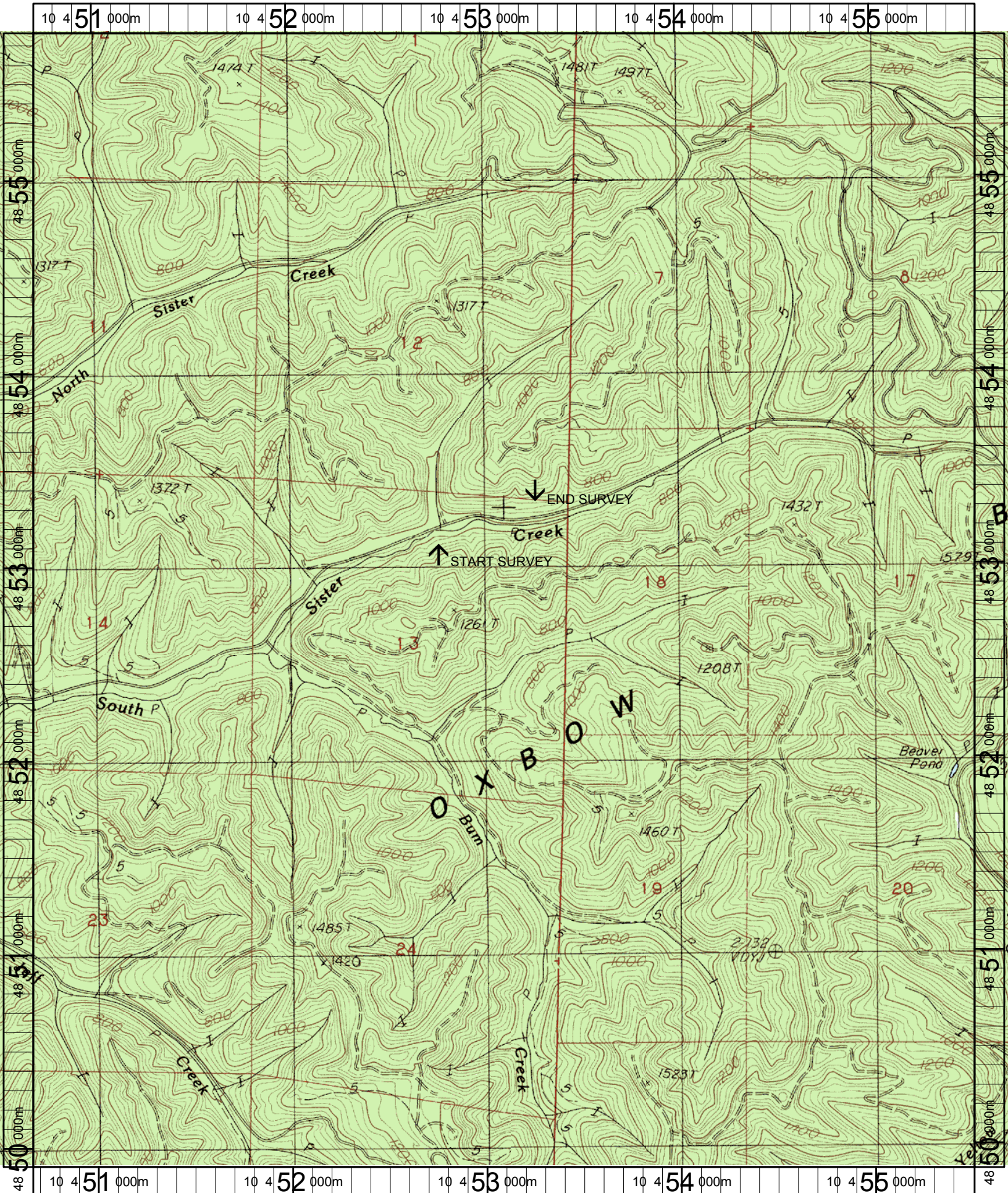
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	17	29.7	31.2
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	3.5	3.7
Pool frequency (channel widths/pool):	8.2		
Residual pool depth (avg):	0.34		

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	5.1		CT-MT;D30,S,LT,ST	
3	RI	00	48.2	SS/	PASSED ANOTHER HAB SIGN U1672	
4	SL	00	49.4	DJ	H= 0.5	
10	RP	00	110.4	DJ		
11	RB	00	124.1	DJ	CA-CT;D15,S,LT,ST	
25	GL	00	260.2		CA-CT;D3,S,LT,ST	
34	RI	00	366.1	DJ		
35	RB	00	373.5	DJ		
36	LP	00	383		CA-CT;M30,D3,LT,ST	
37	RI	00	397.7	DJ		
38	RI	01	409	DJ		
49	RI	00	544.1		CA-CT;D3,S,LT,ST	



Name: GUNTER
 Date: 6/14/2004
 Scale: 1 inch equals 2000 feet

Location: 10 453101 E 4852822 N
 Caption: SOUTH SISTER CREEK REFERENCE SITE - SMITH BASIN