

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

STREAM: Sugarbowl Creek (MC-223)
BASIN: Yaquina River
SURVEY TYPE: Pre-Tx
DATE: July 6, 2004
SURVEY CREW: Erin Richmond, Jeff Snyder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 7.3 km²
USGS MAPS: Marys Peak
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Sugarbowl Creek habitat survey extended 1,422 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 21.8 (range: 13.0-26.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.7 percent. Riffles (62%) and scour pools (33%) dominated stream habitat. Sand (36%) and gravel (34%) dominated stream substrate. Wood volume was very low at 1.0 m³/100m.

COMMENTS:

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

REACH 1

T12S-R08W-S13NW

REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	21.8	VWI Range:	13 - 26

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	1,422	2,137	0
Secondary	43	63	0

Channel Dimensions (m)

Wetted	Active	Floodprone n = 5	First Terrace n = 5
Width: 1.7	Width: 2.1	3.1 (2.1 - 4.5)	5.3 (2.6 - 7.5)
Depth: 0.27	Height: 0.4	0.7 (0.6 - 0.8)	1.4 (1 - 2.1)

W:D ratio: 5.8 Entrenchment (ACW:FPW ratio): 1.5
Stream Flow Type: LF Habitat Units/100m (total channel length): 6.8
Average Unit Gradient: 2.7% Habitat Units/100m (primary channel length): 7.0
Water temperature (°C): 12.5 - 12.5

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	ST	
Riparian Vegetation:	D15	S

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding:	9%	Reach avg: 81%
Undercut Banks:	49%	Range: 31 - 100

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	26	1.8
Volume (m ³):	14	1.0
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

SUGARBOWL CREEK PRE-TX (MC-223)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/6/2004

REACH 1		T12S-R08W-S13NW					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	
GLIDE	1	10	2.1	0.20	21	0	10	30	50	10	0	0	
POOL-BACKWATER	3	27	1.9	0.40	37	0	73	27	0	0	0	0	
POOL-LATERAL SCOUR	33	335	2.4	0.36	710	2	28	40	26	3	0	2	
POOL-PLUNGE	1	2	2.0	0.40	4	0	30	70	0	0	0	0	
POOL-STRAIGHT SCOUR	1	6	2.4	0.30	13	0	0	30	40	30	0	0	
RAPID/BOULDERS	3	62	0.8	0.13	54	430	0	0	13	47	40	0	
RIFFLE	52	968	1.4	0.22	1,271	325	2	37	42	16	2	1	
RIFFLE W/ POCKETS	3	54	1.5	0.20	87	0	7	23	47	23	0	0	
STEP/COBBLE	1	2	2.0	0.10	4	0	0	0	50	50	0	0	
STEP/LOG	1	0	0.4	0.10	0	0	80	20	0	0	0	0	
Total:	99	1,465	1.7	0.27	2,200	757	Avg: 14	36	34	13	2	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	3	27	1.9	0.40	37	1.67%	0	0.0	
Scour Pools	35	342	2.4	0.36	727	33.03%	2	0.3	
Glides	1	10	2.1	0.20	21	0.95%	0	0.0	
Riffles	55	1,022	1.4	0.22	1,358	61.71%	325	23.9	
Rapids	3	62	0.8	0.13	54	2.45%	430	799.3	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	2	1.2	0.10	4	0.19%	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:	38	25.9	26.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	18.4		
Residual pool depth (avg):	0.29		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	488
Total conifers/1000 ft	914
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 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	1.0	0.7	2.0	1.0	4.7	2.3	7.7	4.0
15-30cm	2.7	2.0	2.3	1.3	2.3	0.0	7.3	3.3
30-50cm	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.7
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	3.7	2.7	4.3	3.0	7.0	2.3	5.0	2.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	77		73		83	
Shrub cover	20		18		20	
Grass/forb cover	68		65		62	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		33		67	
High terrace	67		67		33	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	18		17		23	

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		
17	LF	2	HT	12	0	30	70	Conifer							
								Hardwood							
17	RT	3	HS	31	100	20	60	Conifer	3						
								Hardwood							
17	RT	2	HS	24	100	20	40	Conifer	1	1					
								Hardwood							
17	LF	3	HT	12	70	20	60	Conifer	3						
								Hardwood							
17	LF	1	HT	12	0	20	80	Conifer							
								Hardwood							
17	RT	1	HS	25	100	20	70	Conifer	1	2					
								Hardwood							
39	LF	1	HT	14	90	10	70	Conifer	2	3					
								Hardwood							
39	LF	2	HT	12	90	10	80	Conifer	2	3					
								Hardwood							
39	LF	3	HS	26	90	10	90	Conifer		3					
								Hardwood							
39	RT	1	HS	36	90	20	80	Conifer		3					
								Hardwood		1					
39	RT	2	HS	36	90	10	90	Conifer							
								Hardwood		3					
39	RT	3	HS	36	90	30	70	Conifer			3				
								Hardwood	1						
78	LF	2	HT	8	90	10	40	Conifer	2	3					
								Hardwood	3	1					
78	LF	1	HT	8	90	10	50	Conifer							
								Hardwood		3					
78	LF	3	HT	8	90	10	30	Conifer	8	1					
								Hardwood	3						
78	RT	1	HT	12	90	40	60	Conifer							
								Hardwood	2	2					
78	RT	2	HT	12	70	30	70	Conifer	1						
								Hardwood			2				
78	RT	3	HS	27	60	30	60	Conifer							
								Hardwood	3						

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **223** **SUGARBOWL CREEK PRE-TX (MC-2)**

<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	RI	00	25		T=13 DEG C AT 10:00	
4	RI	00	100	BV	BV ON WILLOWS	BEAVER CUTS ON WILLOWS
7	RI	00	175			LOTS OF BLACKBERRIES
9	RI	00	225		COHO FRY -10	COHO
16	LP	00	359.5		COHO FRY - 20, R. SKINN	METRIC353.5M RIP 1
17	RI	00	384.5		RIP 1	
19	RI	00	434.5		ESTIMATED DUE TO BRU	ALDER DEBRIS
20	RI	00	459.5		ESTIMATED DUE TO BRU	
21	RI	00	484.5		ESTIMATED DUE TO BRU	
22	LP	00	504.5		COHO FRY- 50, SNAKE	FLAGGING FOR RESTORATI
24	RI	01	516.5			COHO
25	BW	10	516.5			COHO
26	LP	00	524.5			COHO
27	RI	01	534.5			COHO
28	BW	10	534.5			COHO
29	LP	00	557.5			COHO
30	LP	00	570			COHO
32	RI	00	594			SITE 3
33	LP	00	598		COHO FRY- LOTS	FLAG
35	RI	00	648		ESTIMATE	COHO
37	RI	00	698			COHO

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **223** **SUGARBOWL CREEK PRE-TX (MC-2)**

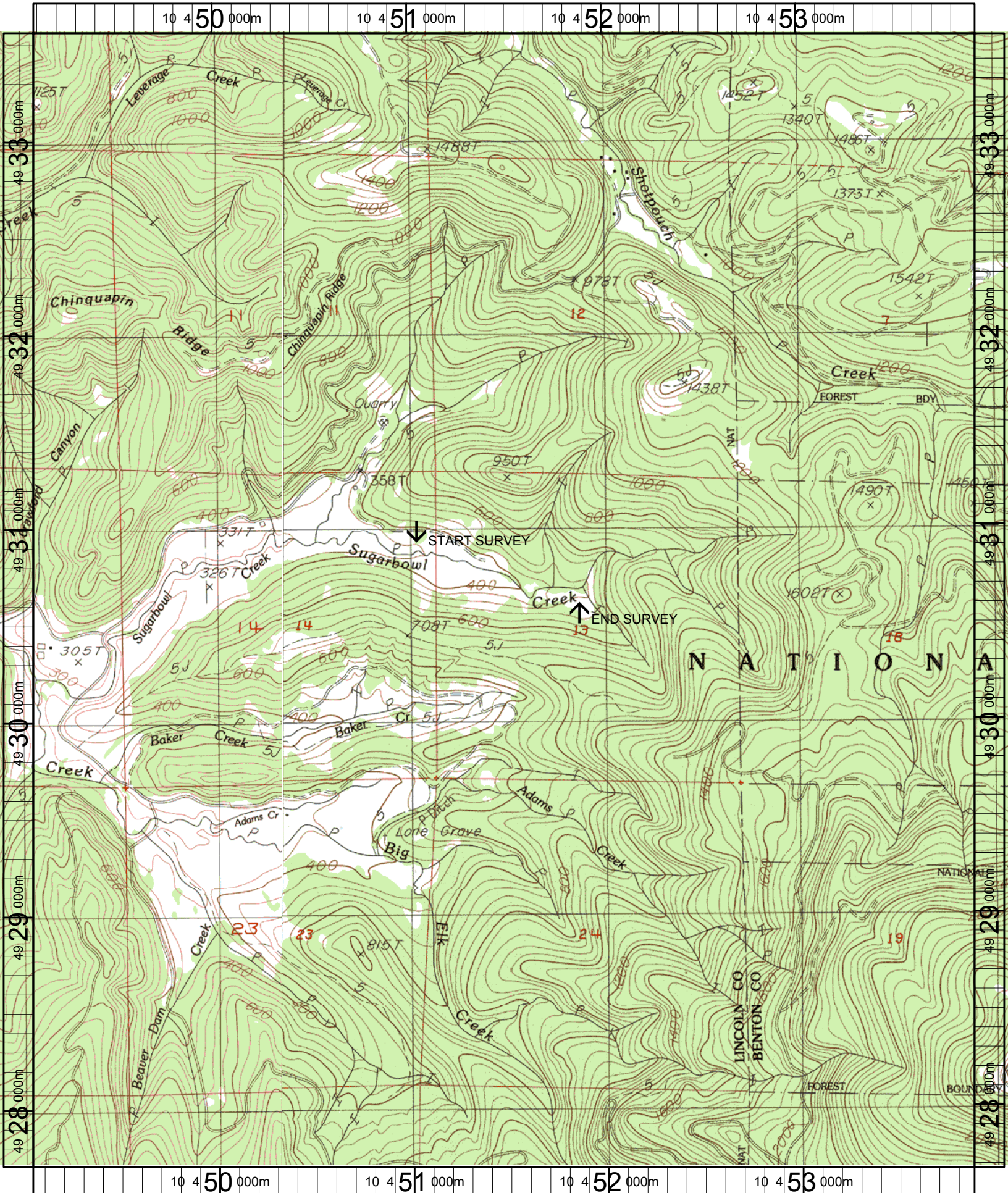
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
38	RI	00	723		RIP 2	RIP, MET
39	RI	00	731.5		T=12 DEG C AT 10:00	
40	LP	00	739.1		COHO FRY - 25	
42	LP	00	751.1	WL	BEAUTIFUL POOL W/ CO	COHO, ROUGH SKINNED NE
44	LP	00	776.6	WL	ROUGH SKINNED NEWT	COHO, ROUGH SKINNED NE
46	LP	00	796.3	WL		COHO, ROUGH SKINNED NE
47	RI	00	798.7			RED, ORANGE FLAGS
49	LP	00	826.9	WL	COHO FRY - 15	COHO, ROUGH SKINNED NE
50	RI	00	834.1	WL		COHO, ROUGH SKINNED NE
51	LP	00	847.4			COHO
52	LP	00	853.4			COHO - 50
54	LP	00	885.4			COHO
56	LP	00	895.9			COHO
58	LP	00	927.9			COHO
59	LP	00	934.9			COHO
61	SP	00	945.4			COHO
62	LP	00	952.4			COHO
63	LP	00	957.9			COHO
64	RI	00	965.4			COHO
65	LP	00	973.9			COHO
66	LP	01	977.9			COHO

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **2-MC** SITE ID: **223** SUGARBOWL CREEK PRE-TX (MC-2)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
67	BW	10	977.9			YELLOW, ORANGE FLAG
68	RP	00	995.9		CABLED RT BANK	
69	LP	00	1003.9	WL /DJ	GAME TRAIL	GAME TRAIL
71	RI	00	1017.9			COHO
72	GL	00	1027.9		COHO FRY - 20	COHO
74	LP	00	1043.7			COHO
75	SC	00	1045.7			COHO
76	LP	00	1051.7			COHO
78	LP	00	1073.1			COHO, ORANGE FLAG
79	LP	00	1077.1	TJ/	COHO FRY 30, RIP 2	COHO, MR 3 TJ TEMP= 13 D
80	RI	11	1077.1		T=13 DEG C AT 12:00 AC	
81	LP	11	1077.1			COHO
84	SL	00	1093.8			H=0.4M
85	RI	00	1118.8			COHO
87	LP	00	1147.8			COHO
92	RI	00	1246.8			FISH STHD
94	RI	00	1296.8			STHD
99	RI	00	1421.8			END SURVEY



Name: MARYS PEAK
 Date: 11/1/2004
 Scale: 1 inch equals 2000 feet

Location: 10 451476 E 4930624 N
 Caption: SUGARBOWL CREEK RESTORATION SITE - YAQUINA BASIN