

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

STREAM: Sugarbowl Creek (MC-223)  
BASIN: Yaquina River  
SURVEY TYPE: Post-Tx  
DATE: June 28, 2005  
SURVEY CREW: Sheila Davis, Jeremy Romer  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 7.3 km<sup>2</sup>  
USGS MAPS: Marys Peak  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Sugarbowl Creek habitat survey extended 1,315 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 16.3 (range: 7.5-20.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.4 percent. Riffles (45%) and scour pools (35%) dominated stream habitat. Gravel (50%) and sand (31%) dominated stream substrate. Wood volume was very low at 2.3 m<sup>3</sup>/100m.

**COMMENTS:**

There were two potential barriers to upstream fish migration in the surveyed length. They included 0.8 and 0.9 m high steps over bedrock at units 104 and 107.

The crew noted several habitat structures during the survey.

REACH 1

T12S-R08W-S14NE

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	16.3	VWI Range:	7.5 - 20

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	1,315	2,533	0
Secondary Channel	0	0	0
Off-Channel Units	57	37	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 5
Width: 2.1	Width: 4.0	14.0 ( 3.8 - 28 )	14.8 ( 9.6 - 21.6 )
Depth: 0.22	Height: 0.5	1.1 ( 0.9 - 1.2 )	2.6 ( 1.2 - 7 )

W:D ratio: 7.8  
 Stream Flow Type: MF  
 Average Unit Gradient: 2.4%  
 Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 5.0  
 Habitat Units/100m (total channel length): 8.2  
 Habitat Units/100m (primary channel length): 8.6

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	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:	8%	Reach avg: 64%
Undercut Banks:	12%	Range: 27 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	72	5.5
Volume (m <sup>3</sup> ):	30	2.3
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

SUGARBOWL CREEK POST-TX (2-MC, 223)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

6/28/2005

REACH 1		T12S-R08W-S14NE					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
POOL-BACKWATER	3	5	1.6	0.37	9	3	40	53	6	0	1	0
POOL-LATERAL SCOUR	42	376	2.5	0.42	882	10	12	47	37	2	0	1
POOL-PLUNGE	3	12	2.5	0.45	27	6	12	55	22	8	3	0
RAPID/BEDROCK	3	35	2.6	0.03	79	0	0	8	5	2	0	86
RAPID/BOULDERS	7	175	1.9	0.06	340	91	1	16	62	16	5	0
RIFFLE	35	643	1.6	0.08	1,029	5	4	17	72	5	0	2
RIFFLE W/ POCKETS	4	102	1.4	0.19	138	0	14	28	59	0	0	0
STEP/BEDROCK	2	3	1.5	0.03	5	0	0	0	0	0	0	100
STEP/BOULDERS	1	1	0.4	0.10	0	1	0	20	30	0	50	0
STEP/COBBLE	6	19	2.8	0.05	57	0	1	9	79	11	0	0
STEP/LOG	7	3	1.5	0.04	4	0	4	49	45	1	0	0
<b>Total:</b>	113	1,372	2.1	0.22	2,570	116	<b>Avg:</b> 8	31	50	4	1	5

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	3	5	1.6	0.37	9	0.34%	3	34.0	
Scour Pools	45	387	2.5	0.42	909	35.36%	16	1.8	
Glides	0	0			0	0.00%	0	0.0	
Riffles	39	745	1.6	0.09	1,167	45.41%	5	0.4	
Rapids	10	210	2.1	0.05	420	16.32%	91	21.7	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	16	25	1.9	0.04	66	2.56%	1	1.5	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	48	35.0	36.5
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	4	2.9	3.0
Pool frequency (channel widths/pool):	7.2		
Residual pool depth (avg):	0.33		

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **2-MC**      SITE ID: **223**      **SUGARBOWL CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	20.6		US MT, BLACKBERRY, TA	
7	LP	00	73		COHO JUVENILES, RSN	SALAMANDERS (RSN)
8	RI	00	112.9		CT MT, S G, ST	
12	RP	00	179.8			THICK VEG
13	RI	00	201.8		JUV. SALMO	COHO/TROUT JUVENILES
14	SL	00	202.1		H=0.3M	
17	RI	11	222.3	/TJ	ACW 0.8M	
18	LP	00	235.9	BV	WILLOWS BEGIN	
21	SL	00	269.3		H=0.3M, CT MT, S G, ST	
22	LP	00	302.5			JUVENILE SALMONIDS
26	LP	00	345.1		/HILLSLOPE	HARDPAN, JUV. SALMONIDS
30	RI	00	450.5		ROADBED/	
31	PP	00	456.2			JUVIES, SALAMANDERS
32	SL	00	456.5		H=0.45M	
34	SL	00	464.7		H=0.4M	
41	LP	00	545	HS	HS	COHO JUVIES
42	RP	01	577.7		US MT, S D15, ST	JUVIES
43	BW	10	577.7			0451350 / 4930780
44	RI	00	601.6			JUVIES
45	LP	00	605.7		RSN	JUVENILES, SALAMANDERS
48	RP	00	655.7		JUV. COHO EVERYWHERE	JUVENILES

# Comment Summary

## Restoration Monitoring Sites 2005

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
50	LP	00	698.4			JUVENILES
51	RI	00	709.7		HILLSLOPE/HILLSLOPE	
52	LP	00	714.4		CA CT	
54	LP	00	741	BV		JUVENILES
56	LP	00	752.3		/HILLSLOPE	
58	LP	00	774.7			JUVENILES
60	LP	00	792.7		HILLSLOPE/	JUVENILES
61	RI	00	833.9		ORANGE/YELLOW FLAG	
62	LP	00	848.9	HS		JUVENILES
63	RI	00	872.5		END 6/28/05	
64	LP	00	879.9		START 6/29/05, TEMP 12C	JUVENILES
68	LP	00	928.3	HS	HS	JUVIES
72	LP	00	949.2		HILLSLOPE/	
76	LP	00	973.4	HS	HS	
77	SC	00	975.6		H=0.2M	
79	RI	00	994.9	WL		ELK
83	LP	00	1035		JUV. COHO	JUVIES
84	RI	00	1054.3		C15-30, LOTS OF THEM	
85	LP	00	1064			JUVIES
86	RB	01	1101.2	/TJ, RF WL	/TJ, 4-WHEEL TRAIL ROA	ELK
87	RB	11	1101.2		ACW 1.9M, TEMP 12C	

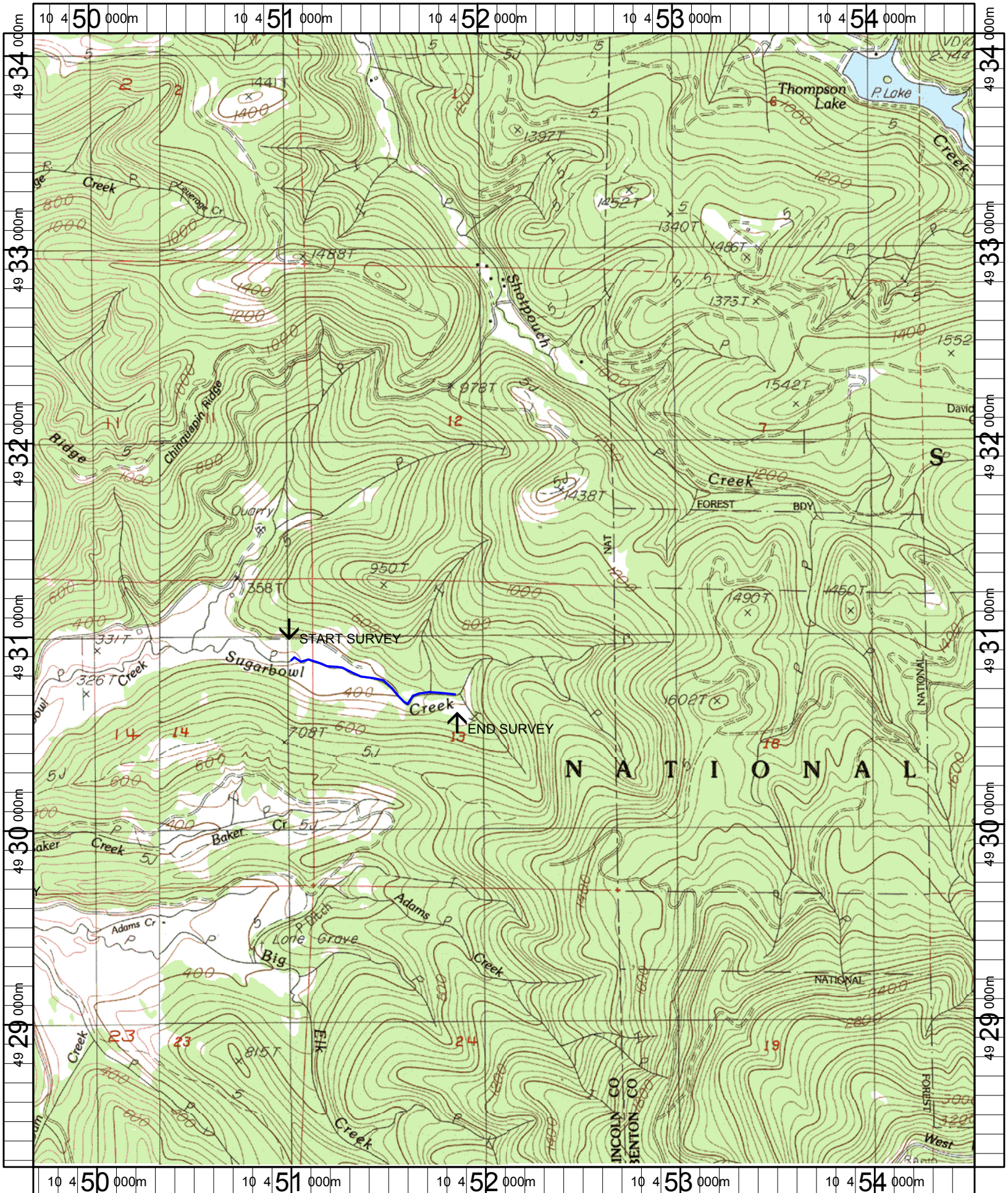
# Comment Summary

## Restoration Monitoring Sites 2005

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
88	LP	00	1111.8		D15 G, ST, CA CT	
91	SL	00	1141.3		H=0.4M	
94	SL	00	1154		H=0.5M	
96	SB	00	1171	TJ/	H=0.4M	
97	RB	01	1211.2		TJ/	
98	RI	11	1211.2		ACW 1.4M, TEMP 12C	
99	SL	11	1211.2		H=0.45M	
100	LP	00	1216.6			JUVIES
104	SR	00	1231.5	PN	H=0.8M, PN	H 0.8M
106	PP	00	1245.3			RSN
107	SR	00	1247.1	PN	H=0.9M, PN	H 0.9M
112	LP	00	1309		CT CT, D15 S, ST	





Name: MARYS PEAK  
 Date: 6/13/2005  
 Scale: 1 inch equals 2000 feet

Location: 10 452114 E 4931174 N  
 Caption: SUGARBOWL CREEK RESTORATION SITE - YAQUINA BASIN