

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

STREAM: Bum Creek (U-251)  
BASIN: Smith River  
SURVEY TYPE: Pre-Tx  
DATE: February 10, 2005  
SURVEY CREW: Brian Bangs, Sheila Davis  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 8.6 km<sup>2</sup>  
USGS MAPS: Gunter  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Bum Creek habitat survey extended 1,161 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 7.0 (range: 2.4-12.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.7 percent. Rapids (29%), scour pools (27%) and riffles (22%) dominated stream habitat. Bedrock (33%) and gravel (25%) dominated stream substrate. Wood volume was low at 12.5 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T20S-R08W-S13SW

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	7.0	VWI Range:	2.4 - 12

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	1,161	5,205	0
Secondary Channel	20	29	1
Off-Channel Units	68	95	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 4.2	Width: 6.8	15.7 ( 10.4 - 20.7 )	26.5 ( 20.1 - 34 )
Depth: 0.27	Height: 0.5	0.9 ( 0.8 - 1.1 )	1.8 ( 1.6 - 2.4 )

W:D ratio: 14.6  
 Stream Flow Type: LF  
 Average Unit Gradient: 1.7%  
 Water temperature (°C): 5.0 - 5.0

Entrenchment (ACW:FPW ratio): 2.4  
 Habitat Units/100m (total channel length): 7.0  
 Habitat Units/100m (primary channel length): 7.5

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	D30

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):	133	11.5
Volume (m <sup>3</sup> ):	146	12.5
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

BUM CREEK PRE-TX (4-UJP, 251)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/10/2005

REACH 1		T20S-R08W-S13SW					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/BOULDERS	1	9	1.6	0.15	14	0	0	0	40	25	35	0
DRY UNIT	1	12	0.8	0.00	9	0	10	0	70	20	0	0
GLIDE	4	76	5.1	0.13	390	0	7	20	5	3	0	65
POOL-BACKWATER	5	29	2.1	0.27	69	0	32	57	6	4	1	0
POOL-DAMMED	7	133	5.4	0.59	637	0	12	51	26	6	5	1
POOL-LATERAL SCOUR	23	264	4.2	0.47	1,104	0	7	16	29	9	8	31
POOL-PLUNGE	1	5	4.6	0.50	25	0	0	10	20	30	40	0
POOL-STRAIGHT SCOUR	2	65	5.2	0.58	335	0	10	13	13	10	8	48
PUDDLED UNIT	1	20	1.5	0.10	29	0	10	20	70	0	0	0
RAPID/BEDROCK	12	237	5.4	0.08	1,247	0	2	8	5	1	5	80
RAPID/BOULDERS	4	65	4.4	0.14	281	0	3	7	52	16	14	7
RIFFLE	23	332	3.6	0.11	1,176	0	3	6	31	14	9	37
STEP/STRUCTURE	3	3	4.4	0.12	14	0	13	40	17	14	17	0
<b>Total:</b>	<b>87</b>	<b>1,248</b>	<b>4.2</b>	<b>0.27</b>	<b>5,330</b>	<b>0</b>	<b>Avg: 7</b>	<b>18</b>	<b>25</b>	<b>9</b>	<b>8</b>	<b>33</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	12	162	4.0	0.45	706	13.24%	0	0.0	
Scour Pools	26	334	4.3	0.48	1,464	27.46%	0	0.0	
Glides	4	76	5.1	0.13	390	7.32%	0	0.0	
Riffles	23	332	3.6	0.11	1,176	22.07%	0	0.0	
Rapids	16	301	5.2	0.09	1,528	28.67%	0	0.0	
Cascades	1	9	1.6	0.15	14	0.26%	0	0.0	
Step/Falls	3	3	4.4	0.12	14	0.26%	0	0.0	
Dry	2	31	1.2	0.05	39	0.73%	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	30.4	32.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	7	5.6	6.0
Pool frequency (channel widths/pool):	4.8		
Residual pool depth (avg):	0.36		

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP**    SITE ID: **251**    **BUM CREEK PRE-TX**

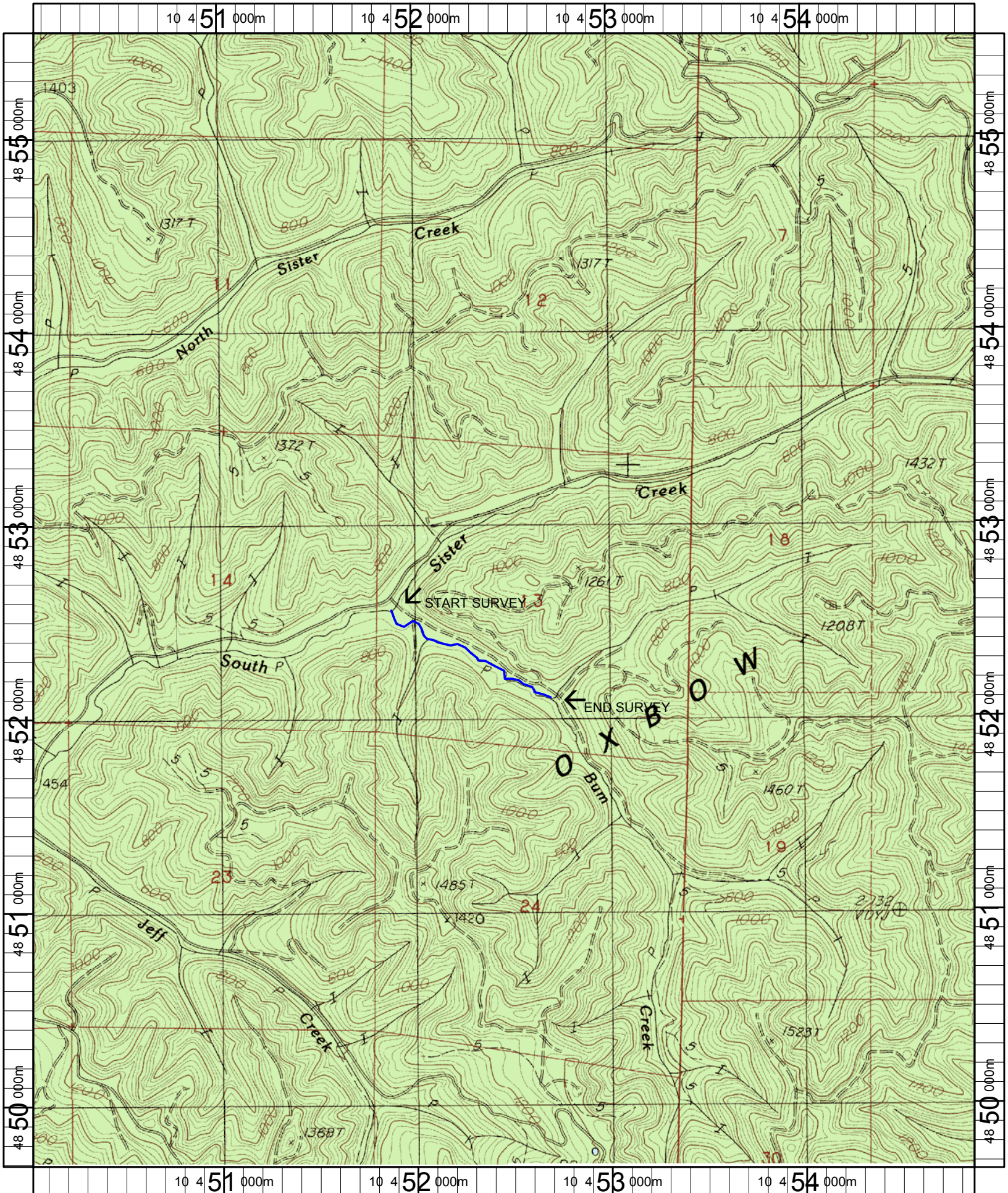
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RR	00	35.8		D15,S;CT-MT	
2	GL	00	48.2		SG,LT	
3	RR	00	69.9	DJ	DJ GOES THROUGH UNIT 4	
4	GL	00	92.9	DJ	DOWN TIMBER, DJ ACROSS STREAM	
6	GL	00	132.1		AMPHIBIAN EGGS	
12	BW	10	202.2	CS/		
13	LP	00	213	CS/, CE/		
16	RI	00	257.6		D15,D30;CT-MT,SG,LT	
17	SP	00	299.4	WL	FRY	
20	RI	01	345.2	/TJ		
23	SP	00	384.6	DJ		
28	RI	00	420.6	DJ	FRY	
29	LP	00	439.4	DJ	FRY	
39	LP	00	556.8	WL	FRY,CH,MV-D30,S,LT,SG	
42	RB	00	611.8	DJ		
51	BW	10	750.7	DJ		
55	LP	01	790.8	DJ, /TJ		
56	DU	11	790.8		TRIB WAS DRY	
58	SS	00	797.4	BV	H= 0.45, BOULDER STRUCTURE	
59	DP	00	841.6		BV USED SS TO BUILD DAM	
61	LP	00	859.7		CA-MT; D3,S,YT,LT	

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 4-UMP    SITE ID: 251    BUM CREEK PRE-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>
62	RI	00	883.1	DJ		
63	LP	01	899.3		SALMON (COHO) CARCASS	
76	LP	00	1065	WL	FRY	
80	SS	00	1092.2		H=0.3, ROCK WEIR	
82	DP	00	1104.7		ROCK WEIR	
83	DP	00	1109.7		ROCK WEIR	
84	DP	00	1117.2		ROCK WEIR	
85	SS	00	1118.4		H= 0.3, ROCK WEIR	
87	RI	11	1160.6	CC	H=0.05,CC=2X2,METAL,NO ROCK	



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

Location: 10 452460 E 4852604 N  
 Caption: BUM CREEK RESTORATION SITE - SMITH BASIN