

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

STREAM: Big Creek Tributary C (U-244)
BASIN: Smith River
SURVEY TYPE: Pre-Tx
DATE: February 20, 2004
SURVEY CREW: Michael Scheu, Jeremiah Bernier
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 2.6 km²
USGS MAPS: Devils Graveyard
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Big Creek Tributary C habitat survey extended 918 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.3 (range: 1.2-13.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 2.6 percent. Scour pools (27%), riffles (25%) and rapids (25%) dominated stream habitat. Gravel (51%) and sand (20%) dominated stream substrate. Wood volume was moderate at 28.7 m³/100m.

COMMENTS:

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

REACH 1

T21S-R08W-S18NE

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	5.3	VWI Range:	1.2 - 13

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	918	3,207	0
Secondary	14	24	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 3.5	Width: 4.8	6.7 (4.2 - 9)	8.4 (6 - 10)
Depth: 0.39	Height: 0.5	1.1 (1 - 1.2)	1.5 (1.4 - 1.7)

W:D ratio: 9.0
Stream Flow Type: MF
Avg. Unit Gradient: 2.6%

Entrenchment (ACW:FPW ratio): 1.4
Water temp (°C): 8.0 - 8.0
Habitat Units/100m: 7.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
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</u>
All pieces (>=3m x 0.15m):	237	25.8
Volume (m ³):	263	28.7
Key pieces (>=10m x 0.60m):	10	1.1

OREGON DEPARTMENT OF FISH AND WILDLIFE

BIG CREEK TRIB C PRE-TX (U-244)

HABITAT INVENTORY

Report Date: 6/16/2004

Survey Date:

2/20/2004

REACH 1

T21S-R08W-S18NE

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/BOULDERS	6	111	3.7	0.36	419	0	0	9	49	22	14	6
CULVERT CROSSING	1	15	2.6	0.30	39	0	0	31	62	0	8	0
DRY UNIT	2	10	1.6	0.00	16	0	0	5	61	32	2	0
POOL-BACKWATER	1	4	2.2	0.60	9	0	15	80	5	0	0	0
POOL-DAMMED	4	36	3.1	0.51	111	0	0	35	61	3	1	0
POOL-LATERAL SCOUR	17	193	3.6	0.51	677	0	1	24	48	11	2	15
POOL-PLUNGE	9	49	4.2	0.74	211	0	0	28	46	5	12	9
RAPID/BEDROCK	1	43	3.4	0.25	145	0	0	10	35	45	5	5
RAPID/BOULDERS	11	189	3.4	0.24	669	0	0	9	50	33	5	3
RIFFLE	10	246	3.2	0.26	816	0	0	16	62	13	2	7
STEP/BEDROCK	1	6	3.4	0.20	22	0	0	0	5	0	5	90
STEP/COBBLE	4	26	3.3	0.25	86	0	0	12	58	29	1	0
STEP/LOG	4	3	4.0	0.15	14	0	0	33	51	1	15	0
Total:	71	932	3.5	0.39	3,231	0	Avg: 0	20	51	15	6	8

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	5	40	2.9	0.53	120	3.71%	0	0.0
Scour Pools	26	242	3.8	0.59	888	27.48%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	10	246	3.2	0.26	816	25.24%	0	0.0
Rapids	12	232	3.4	0.24	813	25.17%	0	0.0
Cascades	6	111	3.7	0.36	419	12.96%	0	0.0
Step/Falls	9	36	3.6	0.20	121	3.75%	0	0.0
Dry	2	10	1.6	0.00	16	0.48%	0	0.0
Culverts	1	15	2.6	0.30	39	1.21%	0	0.0

POOL SUMMARY

	<u>Total</u>	<u># / Km</u>	
All Pools:	31	33.2	14
Pools >=1m deep:	1	1.1	
Complex pools (LWD pieces>=3):	16	17.2	
Pool frequency (channel widths/pool):	6.3		
Residual pool depth (avg):	0.34		

STREAM SUMMARY

BIG CREEK TRIB C PRE-TX (U-244)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
71	932	3.5	0.39	3,231	0	20	51	15	6	8	

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	120	3.71%
Scour Pools	888	27.48%
Glides	0	0.00%
Riffles	816	25.24%
Rapids	813	25.17%
Cascades	419	12.96%
Step/Falls	121	3.75%
Dry	16	0.48%
Culverts	39	1.21%

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **4-UMP** SITE ID: **244** **BIG CREEK TRIB C PRE-TX (U-244)**

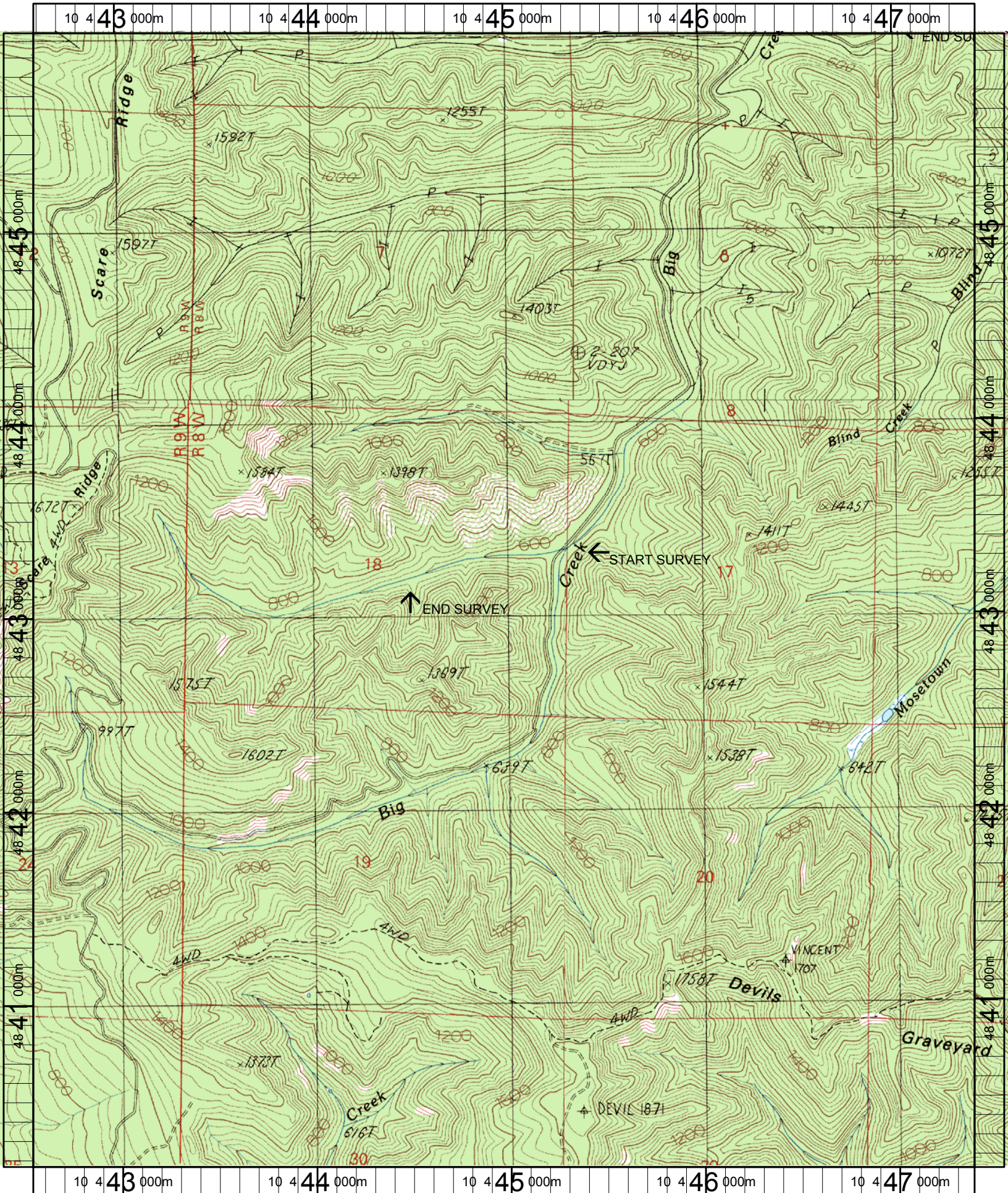
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RB	00	21.2		T=8.5C, "SITE 1A;5 LOGS"	
2	CC	00	36.2	CC	H=1.1M	
4	LP	00	51.9		SITE 1, 5 LOGS, 6 BLDRS,	
7	RB	00	87.4		SITE 2, 5 LOGS, 8 BLDRS,	
10	LP	00	113.8		SITE 3, 2 LOGS, 18 BLDR	
11	RI	00	153.8		SITE 4, 3 LOGS, SITE 5, 1	
16	RR	00	229.3		SITE 6, 5 LOGS	
18	CB	00	268.3	/SS		
20	LP	00	306.4		SITE 7, 3 LOGS	
21	RI	00	345.5	WL	SITE 8, 5 LOGS, GROUSE	
23	RB	00	374.2		SITE 9, 5 LOGS	
27	CB	00	426.8		SITE 10, 4 LOGS	
29	RB	00	473.3		SITE 11, SG=4, 4 LOGS	
32	PP	00	523.6		HUGE BLDRS	
33	CB	01	536.6	TJ/		
34	DU	11	536.6		ACW=1.5	
35	RB	00	560.6	DJ		
37	SL	00	565.2		H=0.9M	
39	SC	00	581.2	DJ		
40	RI	00	597.5		SG=4M2	
41	LP	00	611.5		SG=4M2	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **4-UMP** SITE ID: **244** **BIG CREEK TRIB C PRE-TX (U-244)**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
42	RI	00	649.3		SG=8M2	
44	BW	10	653.3	/TJ		
48	RB	00	688.4		LOGGING CABLE	
50	SL	00	693.8		H=0.8M	
51	PP	00	705.8	/SS		
52	SL	00	706.8		H=0.8M	
55	LP	00	729.8		SG=6M2	
56	RI	00	743.8		LOG CABLE, SG=6M2	
58	RI	00	756.8		SG=4M2	
59	PP	00	760.8	DJ		
63	LP	00	801.6		SG=4M2	
64	RI	00	834.6		SG=8M2	
65	LP	00	845.1		SG=4M2	
67	PP	00	860.5		SG=4M2	
68	SL	00	860.9	/LS	H=.5M	
69	RI	00	901.5		SG=14M2	
70	PP	00	906.4	DJ		
71	RB	01	918.4	TJ/		



Name: DEVILS GRAVEYARD
 Date: 8/4/2004
 Scale: 1 inch equals 2000 feet

Location: 10 444980 E 4843082 N
 Caption: BIG CREEK TRIBUTARY C RESTORATION SITE - SMITH BASIN