

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

STREAM: Big Creek Tributary B (U-243)
BASIN: Smith River
SURVEY TYPE: Post-Tx
DATE: March 3, 2005
SURVEY CREW: Neil Jensen, Jennifer Schmitt
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.2 km²
USGS MAPS: Twin Sisters
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Big Creek Tributary B habitat survey extended 1,201 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.8 (range: 4.0-20.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 2.0 percent. Scour pools (47%) and riffles (27%) dominated stream habitat. Gravel (35%) and cobble (31%) dominated stream substrate. Wood volume was high at 37.6 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

REACH 1

T21S-R08W-S08NW

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	8.8	VWI Range:	4 - 20

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	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	1,201	3,407	0
Secondary Channel	0	0	0
Off-Channel Units	5	11	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 6
Width: 2.8	Width: 5.0	7.3 (5.9 - 11.2)	10.0 (6.9 - 14.4)
Depth: 0.32	Height: 0.5	0.9 (0.82 - 1.04)	1.4 (1 - 2.32)

W:D ratio: 10.8 Entrenchment (ACW:FPW ratio): 1.5
 Stream Flow Type: LF Habitat Units/100m (total channel length): 9.0
 Average Unit Gradient: 2.0% Habitat Units/100m (primary channel length): 9.1
 Water temperature (°C): 6.0 - 6.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	D30	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):	353	29.4
Volume (m ³):	452	37.6
Key pieces (>=12m x 0.60m):	3	0.2

OREGON DEPT OF FISH AND WILDLIFE

BIG CREEK TRIB B POST-TX (4-JUMP, 243)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

3/3/2005

REACH 1		T21S-R08W-S08NW					REACH 1					
HABITAT DETAIL												
Habitat Type	Number	Total	Avg	Avg	Total	Large	Substrate					
	Units	Length	Width	Depth	Area		Boulders	Percent Wetted Area				
		(m)	(m)	(m)	(m ²)	(#>0.5m)	S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BOULDERS	8	146	2.6	0.18	371	0	0	6	26	47	18	2
POOL-BACKWATER	1	5	2.0	0.40	11	0	80	10	5	5	0	0
POOL-DAMMED	1	8	2.1	0.40	17	0	15	65	15	0	5	0
POOL-LATERAL SCOUR	45	455	3.2	0.55	1,475	0	8	28	30	19	6	9
POOL-PLUNGE	4	24	3.3	0.60	79	0	8	42	15	20	16	0
POOL-STRAIGHT SCOUR	2	15	4.6	0.45	69	0	3	18	63	5	13	0
RAPID/BEDROCK	1	29	2.6	0.05	74	0	0	2	10	29	20	39
RAPID/BOULDERS	12	123	2.4	0.09	290	0	0	3	26	58	12	0
RIFFLE	13	188	2.3	0.10	441	0	0	6	57	29	1	6
RIFFLE W/ POCKETS	7	167	2.8	0.12	466	0	1	8	56	27	7	1
STEP/BOULDERS	1	5	3.6	0.10	16	0	0	5	10	25	60	0
STEP/COBBLE	11	41	2.6	0.08	107	0	0	8	48	42	3	0
STEP/LOG	3	2	1.4	0.01	2	0	0	8	18	73	0	0
Total:	109	1,207	2.8	0.32	3,418	0	Avg: 5	17	35	31	8	5

HABITAT SUMMARY									
Habitat Group	Number	Total	Avg	Avg	Wetted Area		Large Boulders		
	Units	Length	Width	Depth	(m ²)	Percent	Number	(# / 100m ²)	
		(m)	(m)	(m)					
Dammed & BW Pools	2	13	2.1	0.40	27	0.80%	0	0.0	
Scour Pools	51	494	3.3	0.55	1,622	47.46%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	20	355	2.5	0.11	907	26.55%	0	0.0	
Rapids	13	152	2.4	0.09	364	10.65%	0	0.0	
Cascades	8	146	2.6	0.18	371	10.87%	0	0.0	
Step/Falls	15	47	2.4	0.07	126	3.67%	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:	53	43.9	44.1
Pools >=1m deep:	1	0.8	0.8
Complex pools (LWD pieces>=3):	22	18.2	18.3
Pool frequency (channel widths/pool):	4.6		
Residual pool depth (avg):	0.46		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP** SITE ID: **243** **BIG CREEK TRIB B POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RB	00	13.3	BC	BIG CREEK ROAD	
4	CB	00	47.8	HS	LOGS AND BOULDERS	
5	RI	00	74.5	HS	LOGS	
6	LP	00	84.4		REDD, FLAG FOR SITE 2	
7	RI	00	92	HS	LOGS	
8	LP	00	100.1	WL, HS	REDD, LOGS, PARR	
9	RI	00	123.1	WL, HS	LOGS, REDD	
12	LP	00	146.5	WL, HS	REDD, BOULDERS AND LOGS	
14	LP	00	164.2	HS	BOULDERS, LOGS	
15	SB	00	168.7	HS	BOULDERS	
16	DP	00	176.6		SNORKEL POOL 4	
17	RP	00	191.8	HS	BOULDER, LOGS	
19	RB	00	208.7	WL, HS	REDD, BOULDERS	
20	LP	00	223.2	HS	LOGS, BOULDERS, SN POOL 5	
22	PP	00	255.4	DJ		
23	SL	00	255.9		H = 0.28	
38	LP	00	405.9	WL	PARR	
39	RI	00	426.3	HS, WL	LOGS, REDD	
40	LP	00	438.8	HS	LOGS, SNORKEL POOL 8	
41	RB	00	446.6	LA/		
45	RB	00	479.5	/SS		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP** SITE ID: **243** **BIG CREEK TRIB B POST-TX**

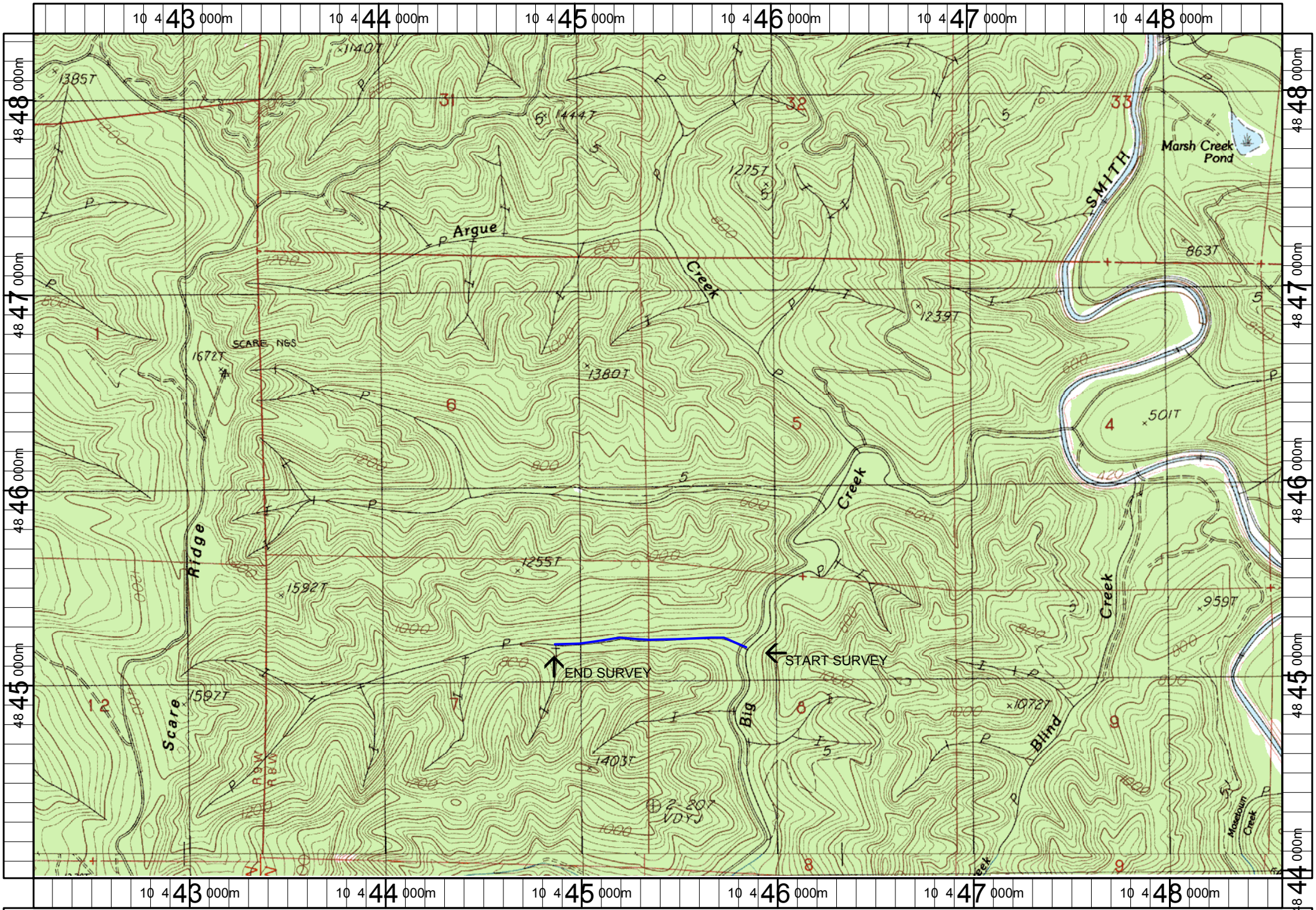
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
47	LP	00	506.7	WL	REDD	
49	SP	00	524.6	WL	SMOLT	
51	LP	00	559.2	WL	REDD	
53	PP	00	570.6	WL	STEELHEAD	
54	SL	00	571		H = 0.1	
56	LP	00	592.8	DJ		
60	SL	00	628.3		H = 0.45	
62	LP	00	662.9		REDD	
64	LP	00	678		SMALL STEP BETWEEN POOLS	
67	LP	00	713.1	WL, DJ	STEELHEAD	
68	RP	00	743.6	DJ		
77	LP	00	851.1	LA, SS/		
82	RB	00	905.5	SS/		
86	LP	00	945	WL, DJ	STEELHEAD	
88	LP	00	955.9	DJ		
90	LP	00	971.6	WL, DJ	STEELHEAD	
92	LP	00	987.6	DJ, WL	STEELHEAD	
97	RB	00	1024.9		FLAG - END TRIB B COHO	
98	LP	00	1039.1	DJ		
100	LP	00	1091.7	WL	REDD	
103	RB	00	1136.1	WL	REDD	

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 4-UMP SITE ID: 243 BIG CREEK TRIB B POST-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>
104	LP	00	1150.8			SMALL STEP BETWEEN POOLS
107	LP	00	1184	WL		STEELHEAD, FLAG - STW5, NO ROK
108	LP	00	1192.5	WL		REDD



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

Location: 10 445406 E 4846151 N
 Caption: BIG CREEK TRIBUTARY B RESTORATION SITE - SMITH BASIN