

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

STREAM: Bald Peter Creek Lower (W-196)
BASIN: South Santiam River
SURVEY TYPE: Pre-Tx
DATE: July 22, 2004
SURVEY CREW: Erin Richmond, Jennifer Jacobs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 28.8 km²
USGS MAPS: Keel Mountain
ECOREGION: Cascades Western Central

GENERAL DESCRIPTION:

The Bald Peter Creek habitat survey extended 511 meters. The channel was constrained by hillslopes in a moderate V-shape valley. The average valley width index was 1.8 (range: 1.1-2.2). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 5.6 percent. Scour pools (28%) and rapids (28%) dominated stream habitat. Bedrock (29%), cobble (25%) and boulders (21%) dominated stream substrate. Wood volume was low at 12.2 m³/100m.

COMMENTS:

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

REACH 1

T11S-R12E-S32SE

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	1.8	VWI Range:	1.1 - 2.2

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
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	511	2,519	0
Secondary	53	244	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 4.9	Width: 10.3	11.7 (9.3 - 15.2)	11.7 (9.8 - 13.1)
Depth: 0.38	Height: 0.7	1.4 (1.2 - 1.7)	2.1 (1.8 - 2.3)

W:D ratio: 14.7 Entrenchment (ACW:FPW ratio): 1.1
 Stream Flow Type: LF Habitat Units/100m (total channel length): 6.9
 Average Unit Gradient: 5.6% Habitat Units/100m (primary channel length): 7.6
 Water temperature (°C): 14.0 - 14.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
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: 98%
Undercut Banks:	0%	Range: 81 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	78	15.3
Volume (m ³):	63	12.2
Key pieces (>=12m x 0.60m):	1	0.2

OREGON DEPARTMENT OF FISH AND WILDLIFE BALD PETER CREEK LOWER PRE-TX (W-196)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/22/2004

REACH 1		T11S-R12E-S32SE					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/BEDROCK	3	46	2.3	0.18	103	15	0	0	3	10	10	77
CASCADE/BOULDERS	5	107	4.0	0.16	439	135	1	2	12	22	46	18
DRY UNIT	1	24	4.9	0.00	116	0	10	10	20	20	40	0
POOL-BACKWATER	1	4	2.3	0.80	8	5	10	0	10	10	10	60
POOL-LATERAL SCOUR	11	120	5.5	0.63	674	30	3	6	26	25	11	30
POOL-PLUNGE	4	19	5.4	0.75	100	5	3	3	23	25	15	33
PUDDLED UNIT	1	1	0.6	0.03	1	0	33	33	33	0	0	0
RAPID/BEDROCK	1	18	4.3	0.20	75	5	0	0	0	10	0	90
RAPID/BOULDERS	5	111	6.3	0.16	696	90	0	0	22	32	36	10
RIFFLE	2	30	4.1	0.25	120	15	3	3	20	55	20	0
RIFFLE W/ POCKETS	2	58	4.8	0.30	271	30	0	0	25	35	25	15
STEP/BEDROCK	2	27	6.5	0.20	148	10	0	0	10	20	10	60
STEP/BOULDERS	1	2	6.5	0.05	13	5	0	0	0	60	40	0
Total:	39	565	4.9	0.38	2,763	345	Avg: 3	3	19	25	21	29

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	1	4	2.3	0.80	8	0.29%	5	62.1
Scour Pools	15	139	5.4	0.66	773	27.97%	35	4.5
Glides	0	0			0	0.00%	0	0.0
Riffles	4	88	4.4	0.28	392	14.17%	45	11.5
Rapids	6	128	6.0	0.17	771	27.89%	95	12.3
Cascades	8	153	3.4	0.17	543	19.64%	150	27.6
Step/Falls	3	29	6.5	0.15	161	5.82%	15	9.3
Dry	2	25	2.8	0.02	116	4.21%	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:	16	28.3	31.3
Pools >=1m deep:	1	1.8	2.0
Complex pools (LWD pieces>=3):	3	5.3	5.9
Pool frequency (channel widths/pool):	3.4		
Residual pool depth (avg):	0.59		

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RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	813
Total conifers/1000 ft	386
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	0.0	3.7	0.0	0.3	0.0	0.0	0.0	4.0
15-30cm	0.0	4.7	2.0	2.7	1.7	1.0	3.7	8.3
30-50cm	0.0	0.0	0.7	1.0	2.0	0.0	2.7	1.0
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	0.0	8.3	2.7	4.0	3.7	1.0	2.1	4.4

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	73		60		56	
Shrub cover	23		28		20	
Grass/forb cover	63		45		35	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		100		100	
High terrace	50		0		0	
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 (%)	66		116		114	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

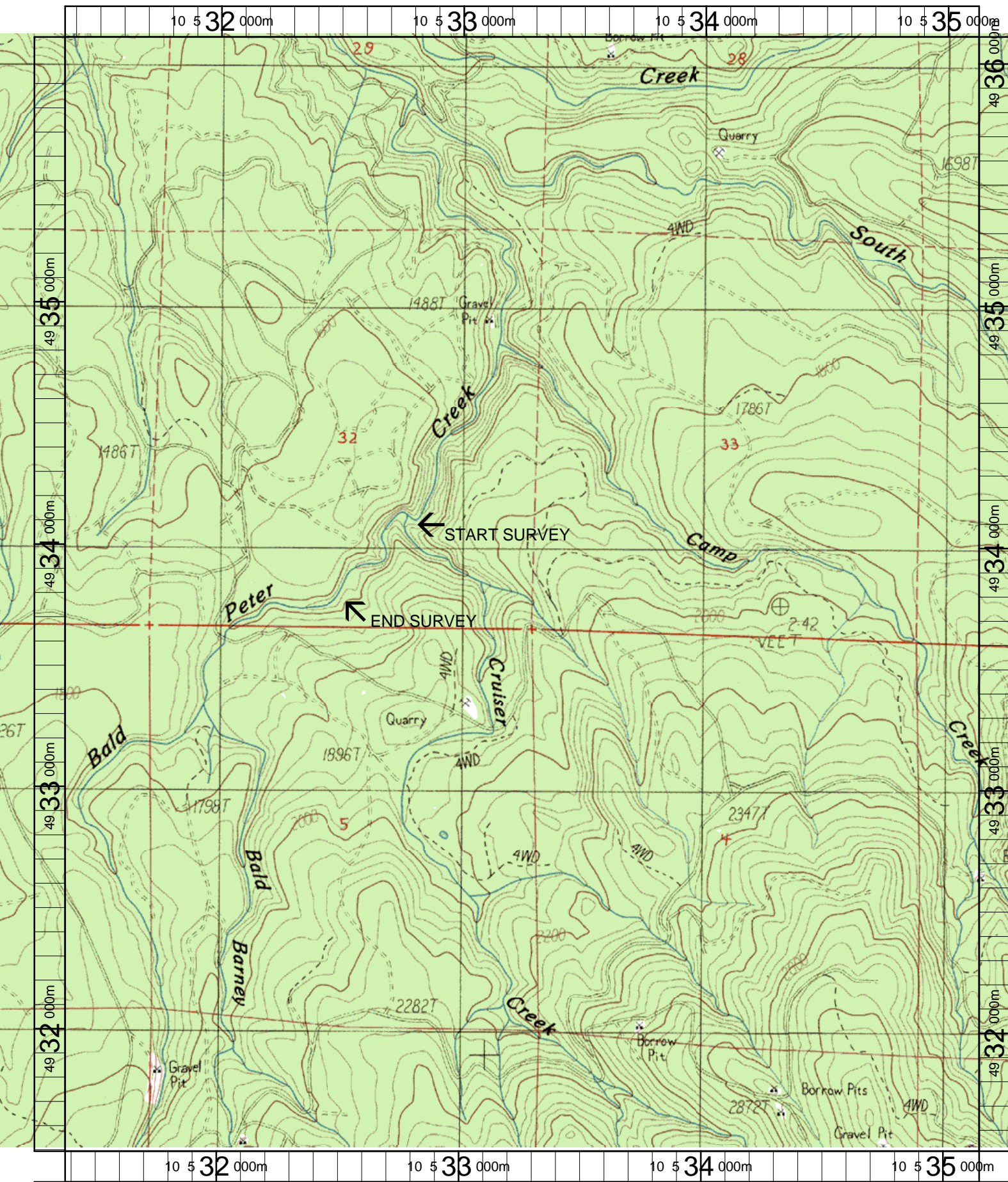
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
11	RT	1	HS	150	80	10	40	Conifer							50% BDRCK
								Hardwood	5	1					
11	RT	2	HS	130	70	20	40	Conifer		1					
								Hardwood		3					
11	LF	3	HS	130	10	10	30	Conifer							60% DEBRIS AND SNAGS
								Hardwood							
11	LF	2	HS	130	70	20	50	Conifer				1			
								Hardwood	1	2					
11	LF	1	HT	5	70	20	80	Conifer							
								Hardwood	3						
11	RT	3	HS	120	70	20	50	Conifer			1	1			
								Hardwood		2					
20	LF	1	HS	130	60	60	10	Conifer							30% BEDROCK
								Hardwood							
20	LF	2	HS	120	20		10	Conifer			2				
								Hardwood		1					
20	LF	3	HS	115			20	Conifer							
								Hardwood							
20	RT	1	HT	7	70	20	80	Conifer							
								Hardwood	1	3					
20	RT	2	HS	120	60	40	60	Conifer			1	1			
								Hardwood							
20	RT	3	HS	120	80	40	20	Conifer			2	1			
								Hardwood							
30	LF	3	HS	110	40	10	20	Conifer			1	2			
								Hardwood			1				
30	RT	1	HS	90	80	10	90	Conifer							
								Hardwood			6				
30	LF	2	HS	90	60	40	30	Conifer							
								Hardwood			1	3			
30	RT	3	HS	90	80	20	70	Conifer			1	2			
								Hardwood							
30	LF	1	HT	12	80	20	80	Conifer							
								Hardwood	2	4					
30	RT	2	HS	105	80	20	80	Conifer				2			
								Hardwood			1				

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **8-W** SITE ID: **196** **BALD PETER CREEK LOWER PRE-T**

<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	CB	11			START	ACW=6.7M, START AT TJ
2	CB	01	24.8			POOL .5M
3	DU	02	24.8			H20 TRICKLE FROM HILLSLO
6	SR	00	57.8			METRICS HERE DUE TO 02
8	LP	00	94.3			TROUT
9	CR	01	112.8	SS/SS		
11	LP	00	122			METRICS AND RIP 1
20	RI	00	244.6			METRICS AND RIP 2
23	LP	00	269.8			ORANGE FLAG
28	SR	00	346.4		PHOTO H=.3	H=.3M
29	LP	00	351.4			PHOTO 0026, 0028
30	RB	00	371.7			PINK FLAG
37	SB	00	456.1	/DJ		H=.4M
38	LP	00	482			TROUT FRY
39	RB	00	511.4		END SURVEY	END OF SURVEY



Name: KEEL MT
 Date: 6/11/2003
 Scale: 1 inch equals 1666 feet

Location: 10 533246 E 4933807 N
 Caption: BALD PETER CREEK LOWER RESTORATION SITE -
 SOUTH SANTIAM BASIN