

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

STREAM: Bald Peter Creek Upper (W-197)
BASIN: South Santiam River
SURVEY TYPE: Pre-Tx
DATE: July 20, 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 466 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.5 (range: 4.0-7.5). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 4.5 percent. Cascades (33%), rapids (24%), riffles (22%) and scour pools (22%) dominated stream habitat. Cobble (41%) and gravel (28%) dominated stream substrate. Wood volume was moderate at 24.0 m³/100m.

COMMENTS:

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

The crew noted one habitat structure during the survey.

REACH 1

T12S-R02E-S05NW

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	5.5	VWI Range:	4 - 7.5

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	466	2,527	0
Secondary	2	5	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 5.5	Width: 8.6	11.0 (9.2 - 13.5)	20.5 (9.5 - 34)
Depth: 0.33	Height: 0.6	1.2 (0.9 - 1.4)	5.9 (1.3 - 9)

W:D ratio: 14.7
 Stream Flow Type: MF
 Average Unit Gradient: 4.5%
 Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 6.4
 Habitat Units/100m (primary channel length): 6.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	M15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:		Reach avg: 99%
Undercut Banks:	1%	Range: 89 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	121	26.0
Volume (m ³):	112	24.0
Key pieces (>=12m x 0.60m):	3	0.6

OREGON DEPARTMENT OF FISH AND WILDLIFE BALD PETER CREEK UPPER PRE-TX (W-197)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/20/2004

REACH 1

T12S-R02E-S05NW

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	9	161	5.0	0.19	826	175	1	2	21	40	37	0
POOL-BACKWATER	1	2	3.1	0.40	5	5	10	0	55	30	5	0
POOL-LATERAL SCOUR	8	93	5.4	0.60	516	20	6	11	39	37	3	5
POOL-PLUNGE	2	7	4.0	0.65	29	10	5	5	28	44	14	5
RAPID/BOULDERS	5	120	4.8	0.18	610	80	2	4	18	36	32	8
RIFFLE	3	39	9.8	0.20	251	15	2	5	23	60	3	7
RIFFLE W/ POCKETS	2	45	6.4	0.13	295	20	0	5	30	55	10	0
Total:	30	467	5.5	0.33	2,532	325	Avg: 3	5	28	41	19	4

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	2	3.1	0.40	5	0.20%	5	100.8
Scour Pools	10	100	5.1	0.61	545	21.51%	30	5.5
Glides	0	0			0	0.00%	0	0.0
Riffles	5	84	8.4	0.17	546	21.57%	35	6.4
Rapids	5	120	4.8	0.18	610	24.08%	80	13.1
Cascades	9	161	5.0	0.19	826	32.64%	175	21.2
Step/Falls	0	0			0	0.00%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	11	23.5	23.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	10.7	10.7
Pool frequency (channel widths/pool):	5.0		
Residual pool depth (avg):	0.54		

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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	975
Total conifers/1000 ft	386
Total conifers >20" dbh/1000 ft	142
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	0.7	0.0	1.7	0.0	1.3	0.0	3.7
15-30cm	0.0	2.7	0.0	2.3	1.3	3.0	1.3	8.0
30-50cm	0.0	1.7	1.0	2.0	1.7	0.3	2.7	4.0
50-90cm	0.0	0.3	2.3	0.0	0.0	0.0	2.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	5.3	3.3	6.0	3.0	4.7	2.1	5.3

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	60		67		65	
Shrub cover	558		42		30	
Grass/forb cover	38		52		55	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		67		50	
High terrace	83		33		50	
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 (%)	15		71		79	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

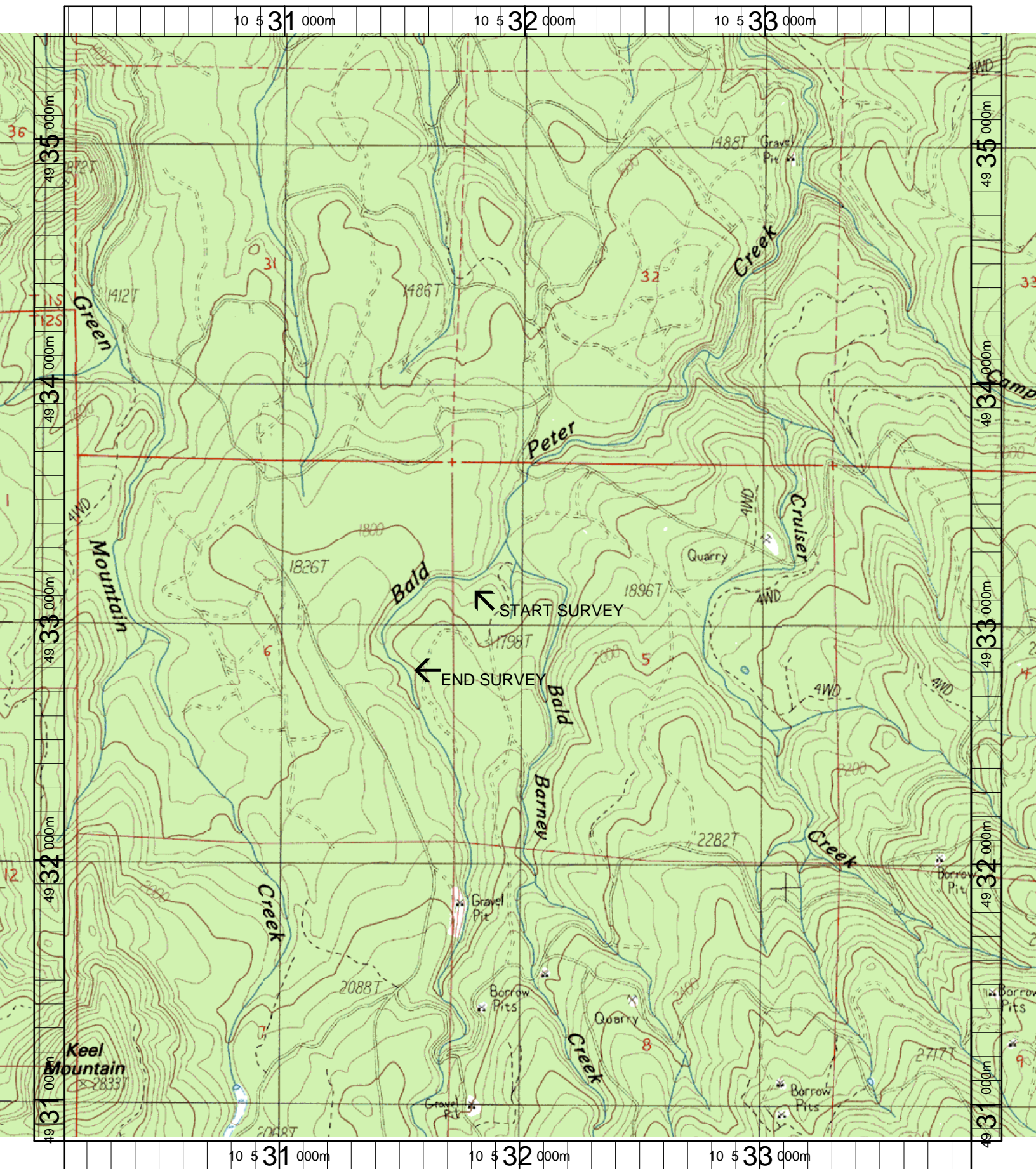
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
6	LF	1	HT	30	60	20	80	Conifer							
								Hardwood		3	1				
6	LF	2	HT	4	60	20	70	Conifer							
								Hardwood		2	1				
6	LF	3	HS	120	80	10	30	Conifer		2					
								Hardwood	1	1					
6	RT	1	HT	16	40	20	50	Conifer							
								Hardwood			1	1			
6	RT	2	HS	120	70	20	60	Conifer			1	2			
								Hardwood	1		3				
6	RT	3	HT	60	60	10	90	Conifer							
								Hardwood		2					
13	LF	3	HT	10	60		100	Conifer							
								Hardwood	3	3	1				
13	RT	3	HT		50	60	30	Conifer		1					
								Hardwood		2					
13	RT	1	HT	6	60	80	20	Conifer							
								Hardwood	2						
13	LF	2	HS	60	60	10	90	Conifer							
								Hardwood	1	3	1				
13	LF	1	HS	26	70	30	70	Conifer							
								Hardwood			1				
13	RT	2	HT		70	80	20	Conifer							
								Hardwood	3	1	1				
21	LF	1	HT	6	60	80	20	Conifer							
								Hardwood		4					
21	LF	2	HS	80	70	60	40	Conifer				2			
								Hardwood		1					
21	LF	3	HS	90	80	60	30	Conifer				4			
								Hardwood							
21	RT	1	HT	7	70	80	20	Conifer							
								Hardwood		1	2				
21	RT	2	HS	90	70	60	30	Conifer					5		
								Hardwood							
21	RT	3	HS	115	60	10	50	Conifer		1	1				
								Hardwood		1					

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **8-W** SITE ID: **197** **BALD PETER CREEK UPPER 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>
1	CB	00	25		PHOTO, LOOKING DOWN	T=14 DEG C AT12:00
2	CB	00	50			TREE FROG, BRAIDED
3	RB	00	70.5			/POOL=.6M W/ FRY
4	LP	00	89.5	HS		CABLED RN
6	RP	00	132.1		FRY, METRICS, RIP 1	
8	RI	01	152.2			CRAYFISH - DEAD
11	RB	00	206.2		CABLE ON BANK	
13	RB	00	250.2		BRAIDED VW=65	BRAIDED W/ POOLS
14	CB	00	252.2	WL SS/		CRAYFISH
22	PP	00	360.3		RIP 3	
30	RB	00	465.6	DJ/	END SURVEY	END SURVEY



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

Location: 10 531977 E 4933141 N
 Caption: BALD PETER CREEK UPPER RESTORATION SITE -
 SOUTH SANTIAM BASIN