

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: June 24, 2003
SURVEY CREW: Sarah Beldin, Tory Fitchett
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 28.8 km²
USGS MAPS: Keel Mtn.
ECOREGION: Cascades Western Central

GENERAL DESCRIPTION:

The Bald Peter Creek Lower habitat survey extended 545 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.4 (range: 1.0-4.1). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 3.6 percent. Rapids (29%), cascades (24%) and riffles (22%) dominated stream habitat. Cobble (44%) and boulders (26%) dominated stream substrate. Wood volume was low at 9.3 m³/100m.

COMMENTS:

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

REACH 1

T11S-R02E-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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.4	VWI Range:	1 - 4.11

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	545	3,171	0
Secondary	56	133	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	5.7	Width	9.7	13.5	15.0
Depth	0.42	Height	0.8	1.5	2.0
		W:D ratio	13.0	Entrenchment	1.4

Stream Flow Type: LF Water temp (C): 10.0 - 10.0
 Avg. Unit Gradient: 3.6% Habitat Units/100m: 7.0

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 92%
Undercut Banks:	0%	Range: 75 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	45	8.3
Volume (m ³):	50	9.3
Key pieces (>=10m x 0.60m):	1	0.2

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

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

6/24/03

REACH 1		T11S-R02E-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	2	38	6.3	0.30	251	7	0	3	3	5	10	79	
CASCADE/BOULDERS	8	106	5.2	0.34	538	133	0	2	5	45	31	17	
DRY CHANNEL	1	45	1.7	0.00	77	27	0	20	20	40	20	0	
GLIDE	1	10	4.6	0.30	46	1	0	0	10	90	0	0	
POOL-BACKWATER	1	3	4.2	0.70	13	1	0	22	22	44	11	0	
POOL-LATERAL SCOUR	2	29	6.2	0.75	170	9	0	3	8	25	15	50	
POOL-PLUNGE	3	16	6.3	0.77	103	13	0	0	12	60	24	3	
POOL-STRAIGHT SCOUR	5	56	6.4	0.66	342	41	0	5	13	49	22	11	
RAPID/BEDROCK	1	25	5.6	0.40	140	11	0	0	0	25	5	70	
RAPID/BOULDERS	7	128	6.3	0.33	803	88	0	0	11	50	28	12	
RIFFLE	5	110	5.5	0.32	603	62	0	2	11	47	30	10	
RIFFLE W/ POCKETS	1	19	6.8	0.40	131	20	0	0	20	40	40	0	
STEP/BEDROCK	1	4	2.2	0.30	9	2	0	0	0	0	10	90	
STEP/BOULDERS	4	12	6.0	0.30	79	49	0	0	13	40	45	3	
Total:	42	602	5.7	0.42	3,305	464	Avg	0	2	10	44	18	

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	3	4.2	0.70	13	0.39%	1	7.7
Scour Pools	10	101	6.3	0.71	615	18.62%	63	10.2
Glides	1	10	4.6	0.30	46	1.39%	1	2.2
Riffles	6	129	5.7	0.33	734	22.20%	82	11.2
Rapids	8	153	6.2	0.34	943	28.55%	99	10.5
Cascades	10	144	5.5	0.33	789	23.88%	140	17.7
Step/Falls	5	16	5.3	0.30	87	2.65%	51	58.3
Dry	1	45	1.7	0.00	77	2.33%	27	35.1
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	11	18.3
Pools >=1m deep:	1	1.7
Complex pools (LWD pieces>=3):	1	1.7
Pool frequency (channel widths/pool):	5.6	
Residual pool depth (avg):	0.53	

STREAM SUMMARY

BALD PETER CREEK LOWER PRE-TX (W-196)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Large Boulders (>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
42	602	5.7	0.42	3,305	0	2	10	44	26	18	464

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	13	0.39%
Scour Pools	615	18.62%
Glides	46	1.39%
Riffles	734	22.20%
Rapids	943	28.55%
Cascades	789	23.88%
Step/Falls	87	2.65%
Dry	77	2.33%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	1260
Total conifers/1000 ft	488
Total conifers >20" dbh/1000 ft	61
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	4.3	0.0	8.0	1.0	3.3	1.0	15.7
15-30cm	0.0	1.7	0.7	1.3	1.3	0.7	2.0	3.7
30-50cm	0.0	0.7	1.7	0.3	2.3	0.0	4.0	1.0
50-90cm	0.0	0.3	0.0	0.0	1.0	0.0	1.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	7.0	2.3	9.7	5.7	4.0	2.7	6.9

Canopy closure and ground cover

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	91	87	80
Shrub cover	33	29	13
Grass/forb cover	59	51	84

Predominant landform in each zone

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	50	83	100
High terrace	50	17	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 (%)	45	78	91

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	1260
Total conifers/1000 ft	488
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	1.0	15.7
15-30cm	2.0	3.7
30-50cm	4.0	1.0
50-90cm	1.0	0.3
>90cm	0.0	0.0

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	LF	2	HS	70	95	60	40	Conifer			2				
								Hardwood		2					
11	LF	3	HS	70	95	15	85	Conifer				1			
								Hardwood	2						
11	RT	1	HS	150	100	5	80	Conifer							ESTIMATED
								Hardwood	4						
11	LF	1	HT	-8	95	55	45	Conifer							
								Hardwood	1	1	2	1			
11	RT	2	HS	90	100	20	80	Conifer				1			ESTIMATED
								Hardwood	3		1				
11	RT	3	HS	90	100	10	90	Conifer				2			ESTIMATED
								Hardwood	2						
19	LF	1	HS	75	90	20	80	Conifer							BEDROCK EST. DUE TO SLOPE
								Hardwood	2						
19	LF	3	HS	90	100	10	80	Conifer							
								Hardwood	5						
19	RT	2	HT	5	50	60	40	Conifer							
								Hardwood							
19	RT	3	HS	150	10	10	90	Conifer	1						
								Hardwood	1						
19	LF	2	HS	150	90	0	5	Conifer			1				BEDROCK
								Hardwood							
19	RT	1	HT	3	80	20	80	Conifer							
								Hardwood	1	2					
31	LF	3	HS	65	85	5	90	Conifer	2	1	3	1			
								Hardwood							
31	RT	1	HT	10	90	30	50	Conifer							2M HS VINEMAPLE, DOWNWOOD
								Hardwood	3						
31	LF	2	HS	65	85	25	60	Conifer			1	1			
								Hardwood			1				
31	RT	3	HS	80	90	30	70	Conifer			3	1	2		
								Hardwood			2				
31	RT	2	HS	85	100	10	80	Conifer				1			VINE MAPLE
								Hardwood	21	1					
31	LF	1	HS	40	90	65	20	Conifer							4M LOW TERRACE, VINE MAPLE
								Hardwood	2	2					

Comment Summary

Oregon Plan Monitoring Sites 2003

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

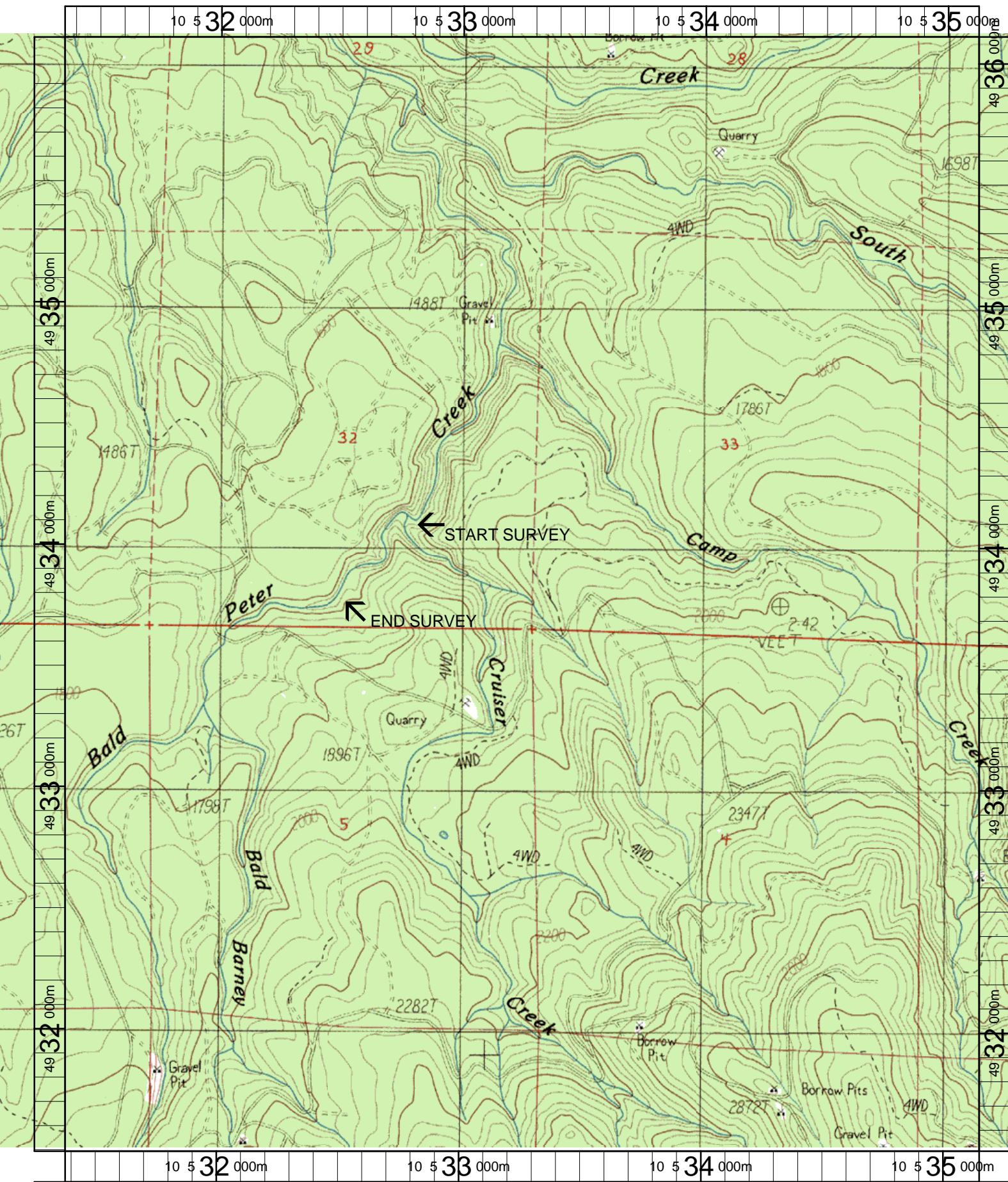
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RP	01	19.2	TJ/	T=10 DEG C @ 10:00 AM	CRUISER CR. TJ
2	CB	11	19.2		TRIB= CRUSIER CR	
3	SB	01	20.7		H=1M	H=1M
6	DC	02	45.4	/SS, DJ		DJ- SEE PHOTO
10	LP	00	113		5M LONG PTC	LONG RIFFLE- LIKE PTC
11	CR	01	126.4	/SS	RIP #1, METRICS #1	
12	BW	10	126.4		OBSOLETE @ HIGH FLO	
19	CB	00	247.2		RIP#2, METRICS#2	
20	RI	00	271.6			LONG RIFFLE-LIKE PTC
21	PP	00	276.5		COOL RED BEDROCK	
22	CB	00	291.9		DEVILS CLUB	
23	SP	00	307		SM RI MID - POOL	
24	SB	00	308.5		H=.55M	H=.55M
27	PP	00	337.5		BEAUTY PP! PHOTO TAK	SEE PHOTO
28	SR	00	341.5		H=1M	H=1.0M
31	SB	00	371		H=.9M	H=0.9M
35	RB	00	430			POCKET 0.6M DEEP
36	RB	00	447.6		VWI BIG HERE	
38	RI	00	481.3		.6M DEEP POCKET	0.6M DEEP POCKET
39	RI	00	505.8		POCKET	POCKET 0.6M DEEP
40	SB	00	510.7		H=.55M	H=.55M

Comment Summary

Oregon Plan Monitoring Sites 2003

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>
41	RI	00	535.3		END SIGN/ ALDER	
42	GL	00	545.3			END



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