

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

STREAM: Panther Creek (U-96)
BASIN: Smith River
SURVEY TYPE: Post-Tx
DATE: July 8, 2003
SURVEY CREW: Jeremiah Bernier, Alex Higgins
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 14.0 km²
USGS MAPS: Beaver Creek
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Panther Creek habitat survey extended 543 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.0 (range: 7.0-11.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (68%) and riffles (19%) dominated stream habitat. Bedrock (40%) dominated stream substrate. Wood volume was moderate at 22.1 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

T20S-R07W-S26NE

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	8.0	VWI Range:	7 - 11

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	543	2,747	0
Secondary	4	12	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	4.8	Width	8.4	11.4	17.4
Depth	0.32	Height	0.6	1.2	1.8
		W:D ratio	14.3	Entrenchment	1.4

Stream Flow Type:	MF	Water temp (C):	14.0 - 14.0
Avg. Unit Gradient:	0.9%	Habitat Units/100m:	6.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	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:	6%	Reach avg: 74%
Undercut Banks:	15%	Range: 25 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	109	20.1
Volume (m ³):	120	22.1
Key pieces (>=10m x 0.60m):	3	0.6

OREGON DEPARTMENT OF FISH AND WILDLIFE

PANTHER CREEK POST-TX (U-96)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/8/03

REACH 1

T20S-R07W-S26NE

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
GLIDE	1	18	5.0	0.40	92	0	0	10	10	20	20	40
POOL-ISOLATED	1	4	3.0	0.30	12	0	10	90	0	0	0	0
POOL-LATERAL SCOUR	19	324	5.7	0.51	1,882	13	0	22	13	11	4	50
RAPID/BOULDERS	1	14	7.0	0.10	99	0	0	5	35	40	20	0
RIFFLE	8	108	3.0	0.10	321	4	0	13	22	31	4	30
RIFFLE W/ POCKETS	2	47	4.6	0.17	216	1	0	10	25	33	13	20
STEP/BEDROCK	3	20	3.9	0.07	77	0	0	3	2	5	0	90
STEP/COBBLE	3	11	5.2	0.06	59	0	0	7	40	43	10	0
Total:	38	547	4.8	0.32	2,759	18	Avg 0	18	17	19	5	40

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	3.0	0.30	12	0.43%	0	0.0
Scour Pools	19	324	5.7	0.51	1,882	68.22%	13	0.7
Glides	1	18	5.0	0.40	92	3.33%	0	0.0
Riffles	10	156	3.3	0.11	537	19.47%	5	0.9
Rapids	1	14	7.0	0.10	99	3.60%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	6	31	4.6	0.07	136	4.94%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	<u>Total</u>	<u># / Km</u>
All Pools:	20	36.5
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	11	20.1
Pool frequency (channel widths/pool):	3.3	
Residual pool depth (avg):	0.42	

STREAM SUMMARY

PANTHER CREEK POST-TX (U-96)

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	
38	547	4.8	0.32	2,759	0	18	17	19	5	40	18

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	12	0.43%
Scour Pools	1,882	68.22%
Glides	92	3.33%
Riffles	537	19.47%
Rapids	99	3.60%
Cascades	0	0.00%
Step/Falls	136	4.94%
Dry	0	0.00%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1 **REACH 1**

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	732
Total conifers/1000 ft	41
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	3.0	0.0	1.0	0.0	2.3	0.0	6.3
15-30cm	0.0	1.0	0.0	0.0	0.0	2.0	0.0	3.0
30-50cm	0.7	0.0	0.0	0.3	0.0	0.7	0.7	1.0
50-90cm	0.0	0.3	0.0	0.7	0.0	0.3	0.0	1.3
>90cm	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
Total/100m2	0.7	4.3	0.0	2.3	0.0	5.3	0.2	4.0

Canopy closure and ground cover

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	62	48	62
Shrub cover	63	48	38
Grass/forb cover	18	33	40

Predominant landform in each zone

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	0	17	33
High terrace	100	83	67
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 (%)	0	4	8

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	732
Total conifers/1000 ft	41
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u> <u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	6.3
15-30cm	0.0	3.0
30-50cm	0.7	1.0
50-90cm	0.0	1.3
>90cm	0.0	0.3

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

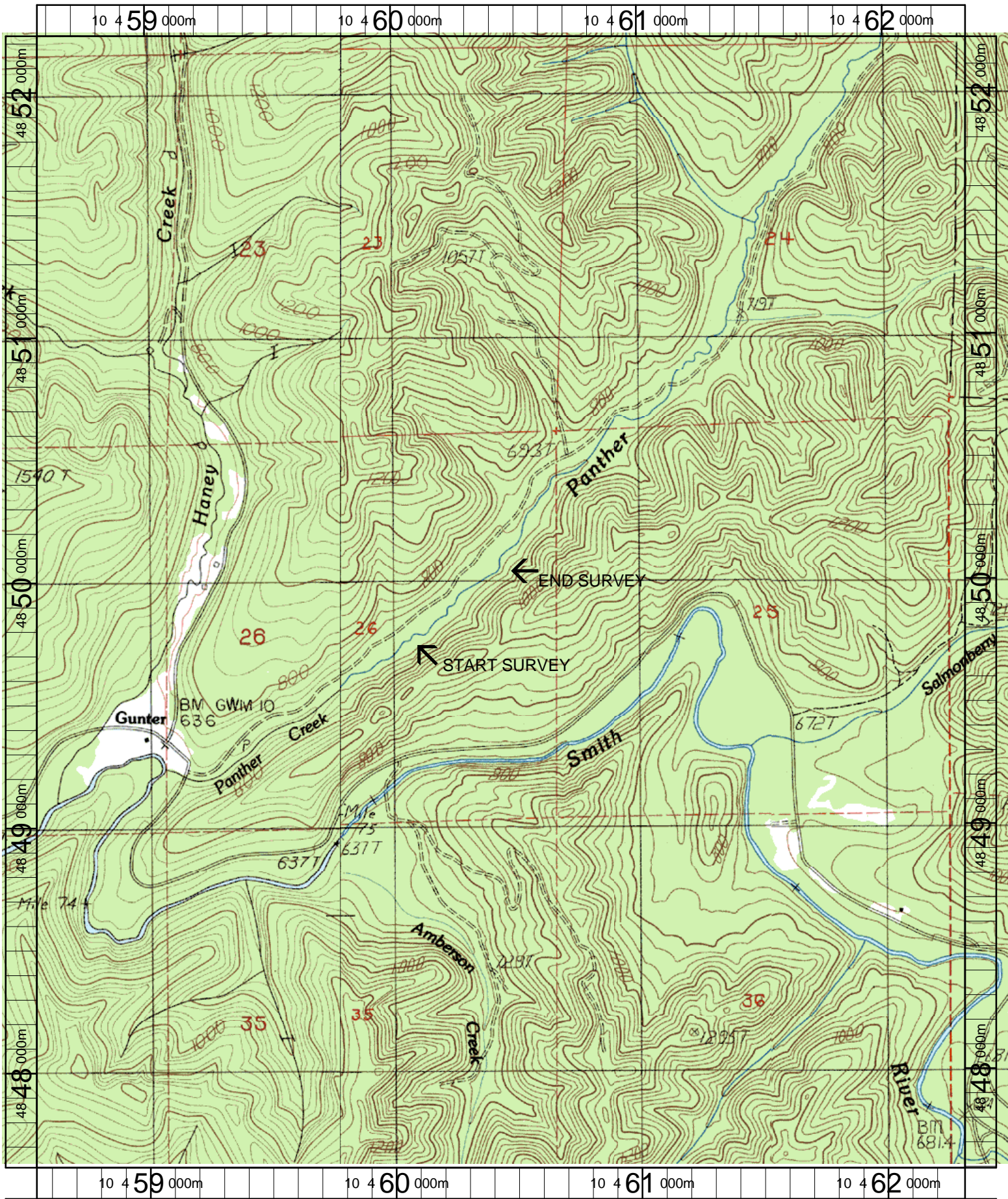
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
12	RT	1	HT	0	90	60	20	Conifer							
								Hardwood	8			1			
12	RT	3	HT	0	25	20	30	Conifer							
								Hardwood	1						
12	RT	2	HT	0	65	60	10	Conifer							
								Hardwood	3		1	1			
12	LF	3	HT	0	60	80	0	Conifer							
								Hardwood							
12	LF	1	HT	0	10	100	0	Conifer							
								Hardwood							
12	LF	2	HT	0	20	100	0	Conifer							
								Hardwood							
21	RT	3	HS	25	85	0	80	Conifer							OLD ROAD
								Hardwood		4					BED 100%
21	LF	1	HT	0	60	30	30	Conifer							DIRT
								Hardwood							HABITAT
21	LF	2	HT	0	5	0	60	Conifer							PLACEMENT
								Hardwood							ROAD
21	LF	3	HT	0	55	60	20	Conifer							FORGED
								Hardwood							ROAD
21	RT	1	HT	0	75	30	40	Conifer				1	1		CLEARCUT
								Hardwood							
21	RT	2	HT	0	80	30	60	Conifer							
								Hardwood					1		
29	RT	3	HS	25	65	0	80	Conifer							
								Hardwood	1		1				
29	RT	2	HS	25	40	10	60	Conifer							
								Hardwood						1	
29	RT	1	HT	0	55	70	10	Conifer							
								Hardwood			3				
29	LF	3	HT	0	80	70	30	Conifer							
								Hardwood	5	2					
29	LF	1	HT	0	80	90	5	Conifer							
								Hardwood	1						
29	LF	2	HT	0	75	90	5	Conifer							
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 4-UMP SITE ID: 96 PANTHER CREEK POST-TX (U-96)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	23	HS	T=14	
6	RI	00	64	HS		
7	GL	00	82.4	HS		
10	RI	00	117.2	HS		
11	LP	00	125.8	HS		
16	SC	00	189.7	HS		
17	LP	00	201.7	HS		
18	SR	00	208.2	HS		
21	LP	00	263.5	HS		ORANGE-STRUCTURESITE 5
27	RP	00	336.3		STRUCTURE SITE #6 3 L	
28	LP	00	347.5	HS		
31	LP	00	409.5	HS		
33	LP	00	457.8	DJ		
35	LP	00	494.6	HS	ORANGE-STRUCTURE SI	S.S.8
37	LP	00	532.7	HS		S.S.9
38	RI	00	543.3			END



Name: BEAVER CREEK
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 460433 E 4849917 N
 Caption: PANTHER CREEK RESTORATION SITE - SMITH BASIN