

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

STREAM: Peterson Creek (NC-54)
BASIN: Miami River
SURVEY TYPE: Post-Tx
DATE: February 12, 2001
SURVEY CREW: Sean Allen, Todd Boswell
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.9 km²
USGS MAPS: Garibaldi
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Peterson Creek habitat survey extended 742 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 7.8 (range: 6.0 – 10.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.7 percent. Riffles (40%) and scour pools (38%) dominated stream habitat. Gravel (75%) dominated stream substrate. Wood volume was moderate at 28.7 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 SUMMARY

REACH 1

T1N-R10W-S2NW

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	0	Multiple Terraces	100
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 7.8 range: 6.0-10.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	100
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	742	4,540	0
Secondary	38	130	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	6.0	Width	8.0	27.4	23.5
Depth	0.49	Height	0.5	1.1	1.4
		W:D ratio	16.0	Entrenchment	3.4

Stream Flow Type: HF Water Temp: 4.0-4.0°C
Avg. Unit Gradient: 0.7% Habitat Units/100m: 6.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D30	C15

Bank Condition and Shade

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

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	84	11.3
Volume (m ³)	213	28.7
Key pieces ($\geq 10m \times 0.6m$)	24	3.2

HABITAT UNIT SUMMARY

REACH 1 T1N-R10W-S2NW 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	Cbbl	Bldr	Bdrk
POOL-BACKWATER	3	20	5.0	0.53	99	0	12	61	27	0	0	0
POOL-BEAVER DAM	3	85	7.3	0.67	619	0	6	17	77	0	0	0
POOL-DAMMED	1	19	14.8	1.00	287	0	10	60	30	0	0	0
POOL-ISOLATED	1	2	2.0	0.40	4	0	80	20	0	0	0	0
POOL-LATERAL SCOUR	18	235	6.1	0.76	1,446	0	3	22	76	0	0	0
POOL-STRAIGHT SCOUR	1	28	11.2	1.00	308	0	2	28	70	0	0	0
RIFFLE	16	365	4.7	0.20	1,746	0	1	10	90	0	0	0
RIFFLE W/ POCKETS	2	22	5.5	0.30	118	0	2	6	93	0	0	0
STEP/BEAVER DAM	3	2	8.1	0.13	18	0	5	22	73	0	0	0
STEP/LOG	1	3	9.5	0.20	25	0	5	20	70	5	0	0
Total:	49	780	6.0	0.49	4,669	0	Avg: 5	20	75	0	0	0

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	Boulders #/100m ²
Dammed & BW Pools	8	126	6.7	0.63	1,008	21.59	0	0.0
Scour Pools	19	262	6.3	0.78	1,754	37.57	0	0.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	18	387	4.8	0.21	1,864	39.92	0	0.0
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	4	5	8.4	0.15	43	0.91	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

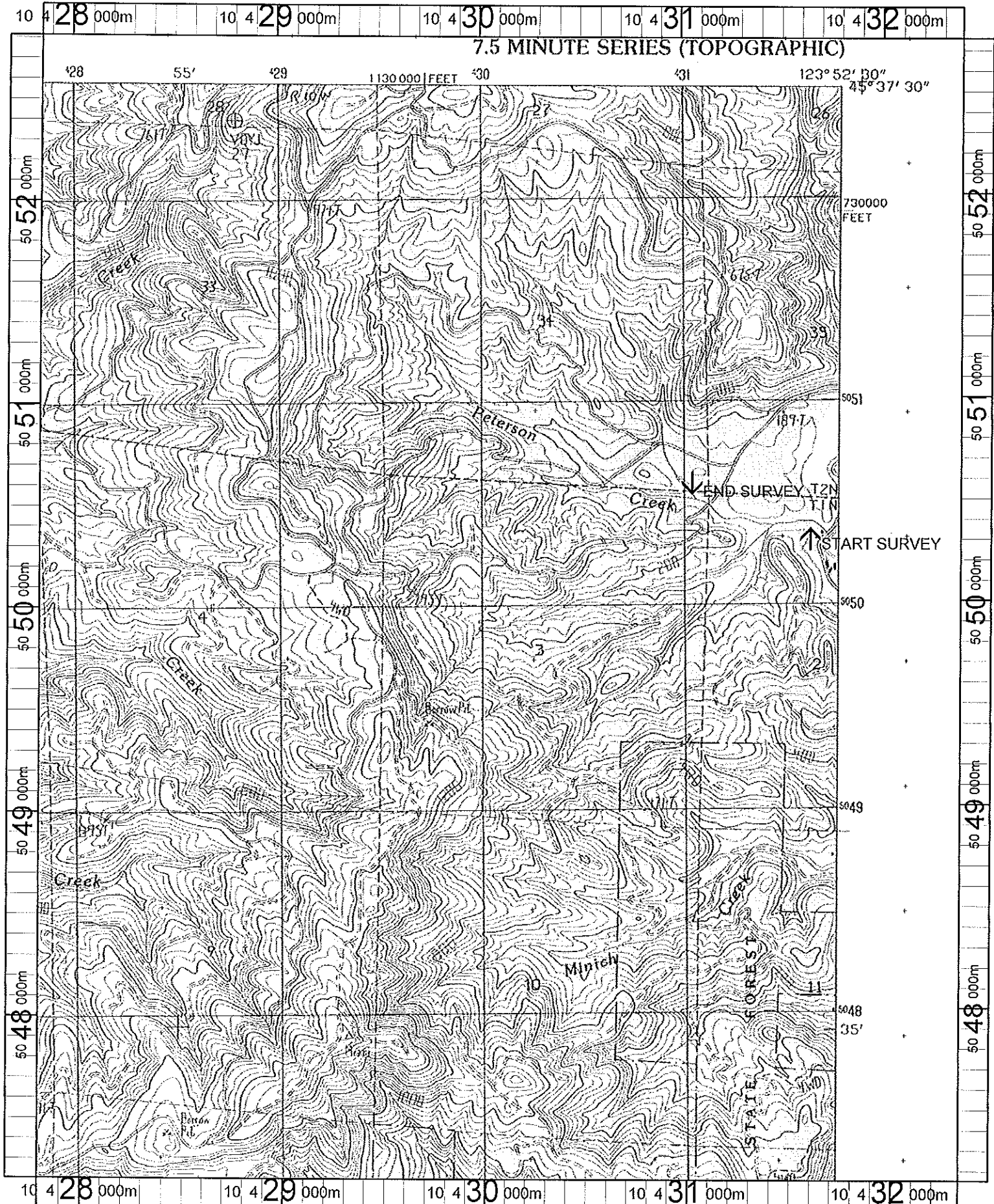
All Pools	<u>Total</u>	<u>#/Km</u>
	27	34.6
Pools ≥1m deep:	4	5.1
Complex pools (LWD pieces ≥3):	7	9.0
Pool Frequency (channel widths/pool):	3.6	
Residual pool depth (avg)	0.63m	

STREAM SUMMARY

PETERSON CREEK POST-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area					Total Large Boulder	
					S/O	Sand	Grvl	Cbbl	Bldr		Bdrk
49	780	6.0	0.49	4,669	5	20	75	0	0	0	0

Habitat Group	Wetted Area	
	(m ²)	Percent
Scour Pool	1,754	37.6
Backwater Pools	1,008	21.6
Glide	0	0.0
Riffle	1,864	39.9
Rapid	0	0.0
Cascade	0	0.0
Step	43	0.9
Dry	0	0.0



Name: GARIBALDI
 Date: 10/3/101
 Scale: 1 inch equals 2000 feet

Location: 10 429992 E 5049965 N
 Caption: PETERSON CREEK RESTORATION SITE - MIAMI BASIN