ODFW AQUATIC INVENTORY PROJECT

OREGON PLAN FOR SALMON & WATERSHEDS

STREAM RESTORATION HABITAT REPORT

STREAM:	Peterson Creek (N-54)
BASIN:	Miami River
SURVEY TYPE:	Post-Tx
DATE:	August 21, 2007
SURVEY CREW:	Trevor Diemer, Nathan Wilson
REPORT PREPARED BY:	Paul Jacobsen
BASIN AREA:	6.9 km^2
USGS MAPS:	Garibaldi
ECOREGION:	Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Peterson Creek habitat survey extended 657 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.5 (range: 2.5-4.5). Land use for the reach was second growth (15-30 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 1.0 percent. Riffles (35%), beaver pools (31%) and scour pools (31%) dominated stream habitat. Sand (47%) and gravel (45%) dominated stream substrate. Wood volume was high at 45.2 m^3/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

OREGON DEPT OF FISH AND WILDLIFE **PETERSON CREEK POST-TX (1-NC, 54)**

HABITAT INVENTORY Report Date: 11/14/2007 Survey Date: 8/21/2007

REACH 1 **T01N-R10W-S02NW** **REACH 1**

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%

Valley Width Index 3.5 VWI Range: 2.5 - 4.5

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

Type	Length (m)	Area (m2)	Dry Units
Primary Channel	657	3,199	0
Secondary Channel	0	0	0
Off-Channel Units	37	56	0

Channel Dimensions (m)

Wetted		Active		Floodprone *n* = 4		First Terrace *n* = 4	
Width:	4.2	Width:	7.8	9.3	(8 - 11)	12.0	(10 - 14)
Depth:	0.41	Height:	0.3	0.6	(0.5 - 0.6)	1.1	(0.8 - 1.5)

W:D ratio: 27.5
Entrenchment (ACW:FPW ratio): 1.2
Stream Flow Type: LF
Habitat Units/100m (total channel length): 5.2
Average Unit Gradient: 1.0%
Habitat Units/100m (primary channel length): 5.5
Water temperature (°C): 14.0 - 14.0

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	ST	MT
Riparian Vegetation:	G	D15

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding:	1%	Reach avg: 78%
Undercut Banks:	0%	Range: 17 - 100

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	88	13.4
Volume (m^3):	296	45.2
Key pieces (>=12m x 0.60m):	31	4.7

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REACH 1 **T01N-R10W-S02NW** **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	15	4.0	0.15	60	0		0	50	50	0	0	0
POOL-BACKWATER	3	12	1.7	0.15	23	0		10	56	34	0	0	0
POOL-BEAVER DAM	1	108	9.0	1.20	972	0		20	40	40	0	0	0
POOL-LATERAL SCOUR	15	200	4.9	0.73	994	16		11	44	43	2	1	0
RIFFLE	12	307	3.1	0.12	1,021	0		0	49	48	2	0	0
RIFFLE W/ POCKETS	1	40	3.0	0.25	120	0		0	48	48	5	0	0
STEP/BEAVER DAM	1	1	10.0	0.10	10	0		0	50	50	0	0	0
STEP/COBBLE	2	11	5.0	0.09	54	0		0	50	50	0	0	0
Total:	36	694	4.2	0.41	3,254	16	**Avg:**	6	47	45	1	0	0

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m^2)	Wetted Area Percent	Large Boulders Number	Large Boulders (# / $100m^2$)
Dammed & BW Pools	4	120	3.5	0.41	995	30.58%	0	0.0
Scour Pools	15	200	4.9	0.73	994	30.55%	16	1.6
Glides	1	15	4.0	0.15	60	1.84%	0	0.0
Riffles	13	347	3.1	0.13	1,141	35.06%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	3	12	6.7	0.09	64	1.97%	0	0.0
Dry	0	0			0	0.00%	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:	19	27.4	28.9
Pools >=1m deep:	3	4.3	4.6
Complex pools (LWD pieces>=3):	5	7.2	7.6
Pool frequency (channel widths/pool):	4.7		
Residual pool depth (avg):	0.66		

OREGON DEPARTMENT OF FISH AND WILDLIFE **PETERSON CREEK POST-TX**

HABITAT INVENTORY **GCG: 1-NC** **SITE ID: 54**

Survey Date 8/21/2007

Report Date: 11/7/2007

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 4 transects

Total hardwoods/1000	1052
Total conifers/1000 ft	213
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	5.5	0.0	3.8	0.8	1.5	0.8	10.8
15-30cm	0.3	0.5	0.0	1.5	1.0	1.5	1.3	3.5
30-50cm	0.0	0.5	0.0	1.0	1.5	1.3	1.5	2.8
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Total/100m2	0.3	6.8	0.0	6.3	3.3	4.3	1.2	5.8

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	42	58	69
Shrub cover	41	47	38
Grass/forb cover	59	53	62

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	13	50	63
High terrace	88	50	38
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 (%)	5	18	23

OREGON DEPARTMENT OF FISH AND WILDLIFE **PETERSON CREEK POST-TX**

HABITAT INVENTORY - RIPARIAN SURVEY **GCG: 1-NC** **SITE ID: 54** **8/21/2007**

Summary of Riparian Zone (0-30m) for all reaches **4 transects**

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

Total hardwoods/1000	1052
Total conifers/1000 ft	213
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3 0-30 meters Conifer	Hardwood
3-15cm	0.8	10.8
15-30cm	1.3	3.5
30-50cm	1.5	2.8
50-90cm	0.0	0.0
>90cm	0.0	0.3

OREGON DEPT OF FISH AND WILDLIFE **PETERSON CREEK POST-TX (1-NC, 54)**

HABITAT INVENTORY Report Date: 11/14/2007 Survey Date: 8/21/2007

GCG: 1-NC SITE ID: 54

RIPARIAN ZONE VEGETATION

Reach 1 Reach 1

					Cover (percent)				Diameter class (cm)					
Unit	Side	Zone	Surface	Slope	Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	Notes
1	LT	1	HT	0	30	50	50	**Conifer**						
								Hardwood	4					
1	LT	2	HT	0	20	50	50	**Conifer**						
								Hardwood	2					
1	LT	3	HT	0	0	30	70	**Conifer**						POWER LINES OVERHEAD 10T 0431556 5050420, 2D
								Hardwood						
1	RT	1	HT	0	75	30	70	**Conifer**						
								Hardwood	6	1	1			
1	RT	2	HT	0	75	35	65	**Conifer**						
								Hardwood	1	2	1			
1	RT	3	HT	0	75	50	50	**Conifer**						
								Hardwood	1	3	2			
16	LT	1	HT	0	5	50	50	**Conifer**						
								Hardwood	1					
16	LT	2	HS	40	20	50	50	**Conifer**						
								Hardwood	3					
16	LT	3	HS	50	85	30	70	**Conifer**	2	2				
								Hardwood	1		1			
16	RT	1	HT	0	10	50	50	**Conifer**						
								Hardwood	4					
16	RT	2	HT	0	10	20	80	**Conifer**						
								Hardwood	2					
16	RT	3	HT	0	30	50	50	**Conifer**						
								Hardwood	1	2	1			
24	LT	1	HT	0	0	5	95	**Conifer**						10T 0431153 5050444, 3D
								Hardwood						
24	LT	2	HS	40	70	95	5	**Conifer**						
								Hardwood	3					
24	LT	3	HS	55	80	40	60	**Conifer**	1	1	1			
								Hardwood	3	1				
24	RT	1	HT	0	90	25	75	**Conifer**						
								Hardwood	1	1			1	
24	RT	2	HT	0	90	40	60	**Conifer**						
								Hardwood			2			
24	RT	3	HS	10	95	50	50	**Conifer**						
								Hardwood			1			

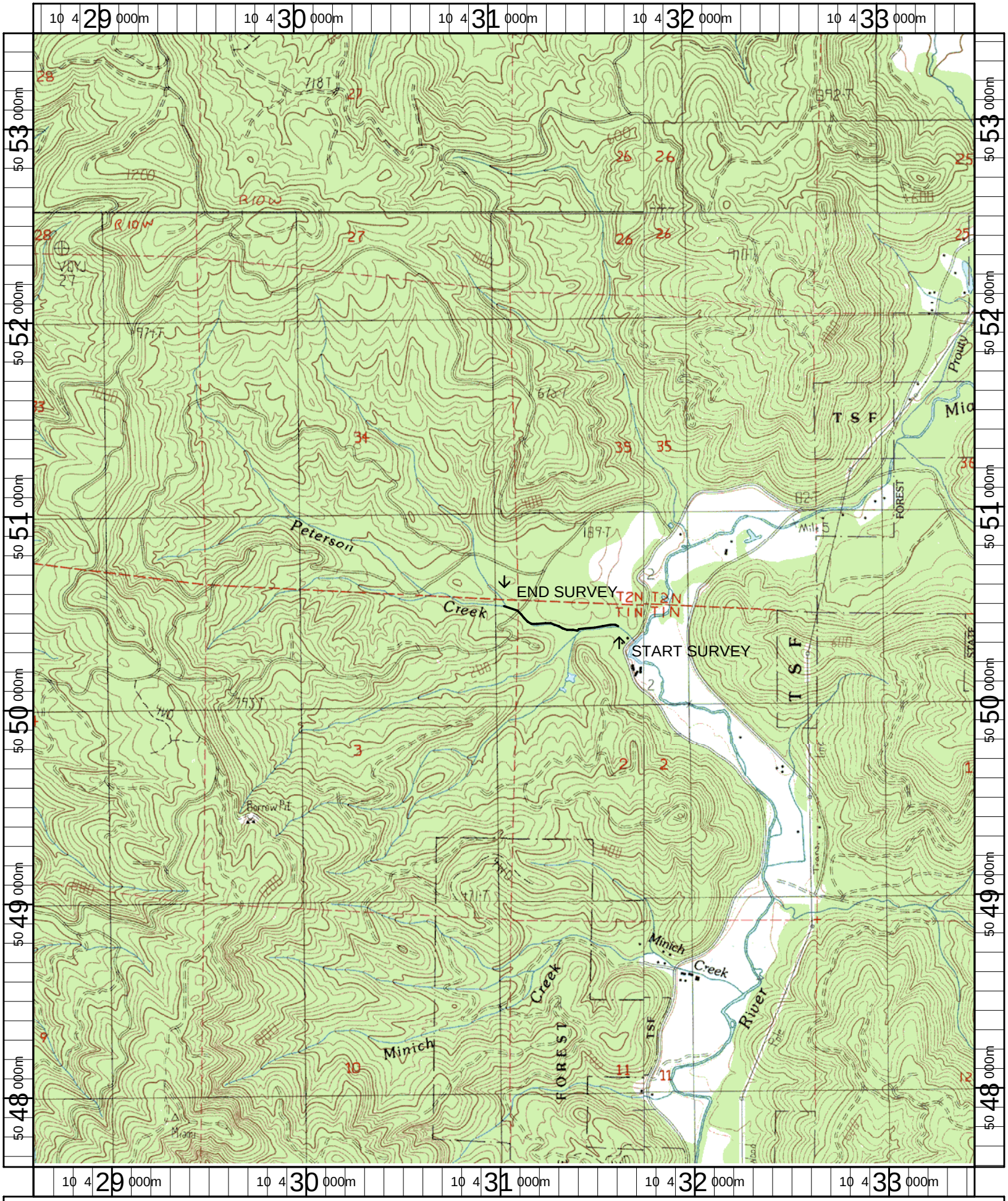
36	LT	1	HS	40	30	90	10	**Conifer**				
								Hardwood	4			
36	LT	2	HS	40	80	80	20	**Conifer**				
								Hardwood	4		1	
36	LT	3	HS	50	90	50	50	**Conifer**		1	2	
								Hardwood				
36	RT	1	HT	0	95	25	75	**Conifer**		1		
								Hardwood	2		1	
36	RT	2	HS	20	95	5	95	**Conifer**				
								Hardwood		4		
36	RT	3	HS	20	100	5	95	**Conifer**			3	
								Hardwood				

10T 0431047
5050524, 3D

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 54 STREAM: PETERSON CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
7	LP	00	75.5	DJ, HS	
9	LP	01	154.5	TJ/	
10	RI	11	154.5		TRIB TEMP 13
15	LP	00	201.5	HS	
17	SD	00	242.5	BD	
18	BP	00	350.5	HS, BV	6X6 YELLOW SIGN THAT SAYS "SITE 4"
22	LP	00	412.5	HS	
32	LP	00	569.5	BC	LOGGING ROAD BRIDGE
36	LP	00	656.5		END AT SPLIT IN RIVER



Name: GARIBALDI
Date: 4/25/2007
Scale: 1 inch equals 2000 feet

Location: 10 0431049 E 5050544 N
Caption: PETERSON CREEK RESTORATION SITE - MIAMI BASIN