

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

STREAM: Dietz Creek (N-134)
BASIN: Kilchis River
SURVEY TYPE: Post-Tx
DATE: July 7, 2004
SURVEY CREW: Scott Young, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 2.4 km²
USGS MAPS: Kilchis River
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Dietz Creek habitat survey extended 488 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.8 (range: 2.0-5.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 5.2 percent. Rapids (61%), scour pools (18%) and cascades (17%) dominated stream habitat. Gravel (37%) and cobble (29%) dominated stream substrate. Wood volume was very high at 40.9 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

T01N-R09W-S23NW

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	3.8	VWI Range:	2 - 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	488	1,838	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 3.8	Width: 7.5	9.9 (8.5 - 11.3)	12.0 (9.8 - 15.3)
Depth: 0.32	Height: 0.5	1.1 (1 - 1.3)	1.7 (1.3 - 2.6)

W:D ratio: 13.8
Stream Flow Type: MF
Average Unit Gradient: 5.2%
Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 1.4
Habitat Units/100m (total channel length): 7.6
Habitat Units/100m (primary channel length): 7.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 85%
Undercut Banks:	2%	Range: 47 - 92

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	123	25.2
Volume (m ³):	199	40.9
Key pieces (>=12m x 0.60m):	11	2.3

OREGON DEPARTMENT OF FISH AND WILDLIFE

DIETZ CREEK POST-TX (N-134)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/7/2004

REACH 1

T01N-R09W-S23NW

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	5	72	4.1	0.19	308	82	4	9	30	34	22	1
POOL-LATERAL SCOUR	10	70	3.6	0.51	247	27	11	27	37	19	6	0
POOL-PLUNGE	2	10	4.1	0.65	39	8	10	21	46	15	8	0
POOL-STRAIGHT SCOUR	1	11	4.7	1.30	50	3	19	19	10	10	5	38
RAPID/BOULDERS	15	305	3.6	0.18	1,116	130	5	11	38	35	10	1
RIFFLE	2	20	3.7	0.14	72	2	5	10	52	31	3	0
STEP/COBBLE	1	1	5.8	0.20	3	0	11	5	42	42	0	0
STEP/LOG	1	1	4.8	0.10	2	3	5	10	40	40	5	0
Total:	37	488	3.8	0.32	1,838	255	Avg: 8	16	37	29	9	2

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	0	0			0	0.00%	0	0.0
Scour Pools	13	91	3.8	0.59	336	18.30%	38	11.3
Glides	0	0			0	0.00%	0	0.0
Riffles	2	20	3.7	0.14	72	3.91%	2	2.8
Rapids	15	305	3.6	0.18	1,116	60.74%	130	11.6
Cascades	5	72	4.1	0.19	308	16.77%	82	26.6
Step/Falls	2	1	5.3	0.15	5	0.29%	3	56.6
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:	13	26.7	26.7
Pools >=1m deep:	1	2.1	2.1
Complex pools (LWD pieces>=3):	2	4.1	4.1
Pool frequency (channel widths/pool):	5.0		
Residual pool depth (avg):	0.43		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	305
Total conifers/1000 ft	488
Total conifers >20" dbh/1000 ft	20
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	0.7	0.3	1.0	2.3	0.0	0.0	1.7	2.7
15-30cm	0.7	0.0	1.7	0.0	1.0	1.0	3.3	1.0
30-50cm	0.7	0.0	1.7	0.7	0.3	0.3	2.7	1.0
50-90cm	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.0	0.3	4.3	3.3	1.7	1.3	2.7	1.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	80		82		78	
Shrub cover	38		41		38	
Grass/forb cover	46		50		43	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		83		67	
High terrace	33		17		17	
Low terrace	17		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	19		42		53	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

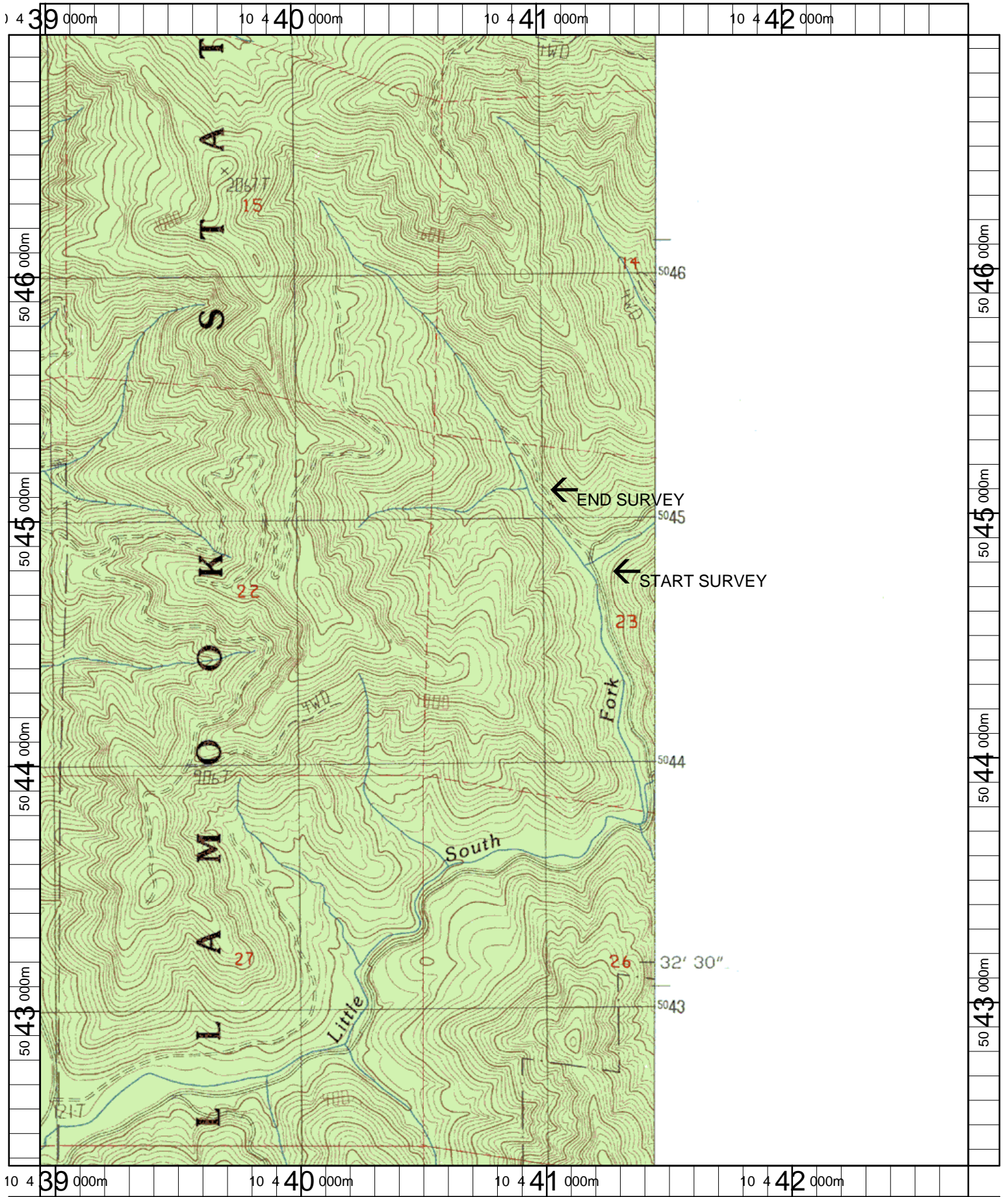
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
11	LF	1	HS	30	85	70	30	Conifer			2				
								Hardwood							
11	LF	2	HS	40	70	70	30	Conifer		1	2				
								Hardwood							
11	LF	3	RB	10	40	70	30	Conifer		2	1			ROAD BED SURFACE: GRAVEL	
								Hardwood							
11	RT	1	LT	0	60	40	20	Conifer							
								Hardwood							
11	RT	2	HS	55	70	65	25	Conifer							
								Hardwood							
11	RT	3	HS	80	90	5	50	Conifer				1			
								Hardwood							
18	RT	2	HS	12	85	35	55	Conifer							
								Hardwood							
18	LF	1	HT	0	90	15	75	Conifer						10T 0441050 5044925 2D	
								Hardwood							
18	LF	2	HS	75	80	30	60	Conifer		4	2			COMBINED SLOPE MEASUREME	
								Hardwood							
18	RT	1	HS	15	80	30	50	Conifer		1					
								Hardwood							
18	RT	3	HS	75	85	45	40	Conifer			1				
								Hardwood							
18	LF	3	HS	75	80	40	30	Conifer				2			
								Hardwood							
30	LF	1	HT	0	85	20	70	Conifer						10T 0440979 5045071 (2D)	
								Hardwood	1						
30	LF	2	HT	0	90	30	60	Conifer							
								Hardwood			2	1			
30	RT	1	HS	70	80	50	30	Conifer	2	1					
								Hardwood							
30	RT	3	HS	75	95	30	50	Conifer							
								Hardwood			1				
30	RT	2	HS	70	95	15	70	Conifer	3		1				
								Hardwood	7						
30	LF	3	HT	0	80	40	60	Conifer							
								Hardwood			1				

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 134 DIETZ CREEK POST-TX (N-134)

<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	RB	00	29.4	/CS	0441248 5044765 - 2D	
2	PP	00	33.9		TEMP= 12 DEG C AT 11:4	
3	CB	00	45.6	SS/		
5	RB	00	65.5	HS	HAB SITE 1	HS=1 LOG
6	LP	00	73.7	HS	COHO FRY	HS=1 LOG
7	RB	00	98.5	HS		HS=6 LOGS
8	RB	00	122.8	HS		HS=5 LOGS, HS=5 LOGS
10	SC	00	132.9		H=0.6M	
11	LP	00	145.1	HS	RIP T 1, 10T 0441124 5044	HS=1 LOG
13	RB	00	176.9	HS,DJ		HS=8 LOGS
14	LP	00	183.1	HS		UC REATED BY ARTIF. TREE
15	RB	00	189.9	HS		1 LOG
18	RB	00	249.1		10T 0441050 5044925 - 2D	
28	RB	00	389.1	SS/		
29	CB	00	406.8	SS/		
30	RB	00	424.8		10T 04440979 5045071 - 2	
32	SL	00	430.4		H=0.55M	
36	CB	00	471.1	SS/		
37	RB	00	487.8		10T 04440978 5045104 - 2	



Name: KILCHIS RIVER
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 440846 E 5044661 N
 Caption: DIETZ CREEK RESTORATION SITE - KILCHIS BASIN