

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

STREAM: Cedar Creek (NC-312)  
BASIN: Nehalem River  
SURVEY TYPE: Pre-Tx  
DATE: August 1, 2005  
SURVEY CREW: Ben Walczak, Scott Young  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 7.5 km<sup>2</sup>  
USGS MAPS: Pittsburg  
ECOREGION: Coast Range Willapa Hills

**GENERAL DESCRIPTION:**

The Cedar Creek habitat survey extended 1,025 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.1 (range: 1.5-7.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.7 percent. Scour pools (37%) and riffles (37%) dominated stream habitat. Gravel (59%) and cobble (30%) dominated stream substrate. Wood volume was very low at 8.6 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T06N-R04W-S34NE

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	4.1	VWI Range:	1.5 - 7

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 Channel	1,025	2,344	0
Secondary Channel	36	47	1
Off-Channel Units	17	21	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 3
Width: 2.2	Width: 4.0	5.0 ( 4.2 - 5.5 )	5.5 ( 5 - 6 )
Depth: 0.26	Height: 0.3	0.6 ( 0.5 - 0.6 )	1.3 ( 1.1 - 1.7 )

W:D ratio: 14.0  
 Stream Flow Type: LF  
 Average Unit Gradient: 1.7%  
 Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.3  
 Habitat Units/100m (total channel length): 8.7  
 Habitat Units/100m (primary channel length): 9.2

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	5%	Reach avg: 74%
Undercut Banks:	3%	Range: 44 - 89

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	152	14.8
Volume (m <sup>3</sup> ):	88	8.6
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

CEDAR CREEK PRE-TX (1-NC, 312)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

8/1/2005

REACH 1		T06N-R04W-S34NE					REACH 1					
HABITAT DETAIL												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-BACKWATER	2	7	1.8	0.13	16	0	15	20	55	10	0	0
POOL-BEAVER DAM	2	41	3.0	0.65	123	0	8	18	63	13	0	0
POOL-LATERAL SCOUR	38	373	2.3	0.47	861	0	3	6	59	25	0	6
POOL-PLUNGE	2	10	4.3	0.50	42	0	5	10	55	30	0	0
PUDDLED UNIT	1	11	2.0	0.01	22	0	0	5	60	35	0	0
RAPID/BEDROCK	2	66	2.5	0.10	163	0	0	0	10	10	0	80
RAPID/BOULDERS	6	101	1.8	0.09	193	0	1	1	67	32	0	0
RIFFLE	26	421	2.0	0.10	887	0	0	2	61	36	0	1
STEP/BEAVER DAM	2	2	2.8	0.10	4	0	5	15	60	20	0	0
STEP/COBBLE	11	45	2.0	0.05	98	0	0	0	60	40	0	0
STEP/LOG	2	1	3.8	0.05	4	0	0	0	60	40	0	0
<b>Total:</b>	<b>94</b>	<b>1,078</b>	<b>2.2</b>	<b>0.26</b>	<b>2,412</b>	<b>0</b>	<b>Avg: 2</b>	<b>5</b>	<b>59</b>	<b>30</b>	<b>0</b>	<b>5</b>

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	4	48	2.4	0.39	139	5.76%	0	0.0	
Scour Pools	40	383	2.4	0.47	903	37.43%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	26	421	2.0	0.10	887	36.77%	0	0.0	
Rapids	8	167	2.0	0.09	356	14.76%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	15	48	2.3	0.06	105	4.36%	0	0.0	
Dry	1	11	2.0	0.01	22	0.91%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	44	40.8	42.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	14	13.0	13.7
Pool frequency (channel widths/pool):	6.2		
Residual pool depth (avg):	0.40		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

CEDAR CREEK PRE-TX  
GCG: 1-NC SITE ID: 312

Survey Date 8/1/2005  
Report Date: 4/26/2006

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	853
Total conifers/1000 ft	0
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	0.7	0.0	2.3	0.0	4.3	0.0	7.3
15-30cm	0.0	1.0	0.0	1.0	0.0	1.0	0.0	3.0
30-50cm	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.7
50-90cm	0.0	0.7	0.0	0.3	0.0	0.0	0.0	1.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	5.0	0.0	3.7	0.0	5.3	0.0	4.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	68		58		62	
Shrub cover	32		28		30	
Grass/forb cover	63		59		68	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		33		67	
High terrace	83		50		33	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		0	
Riprap	0		0		0	
Surface slope (%)	5		4		17	

**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	853
Total conifers/1000 ft	0
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	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	7.3
15-30cm	0.0	3.0
30-50cm	0.0	2.7
50-90cm	0.0	1.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

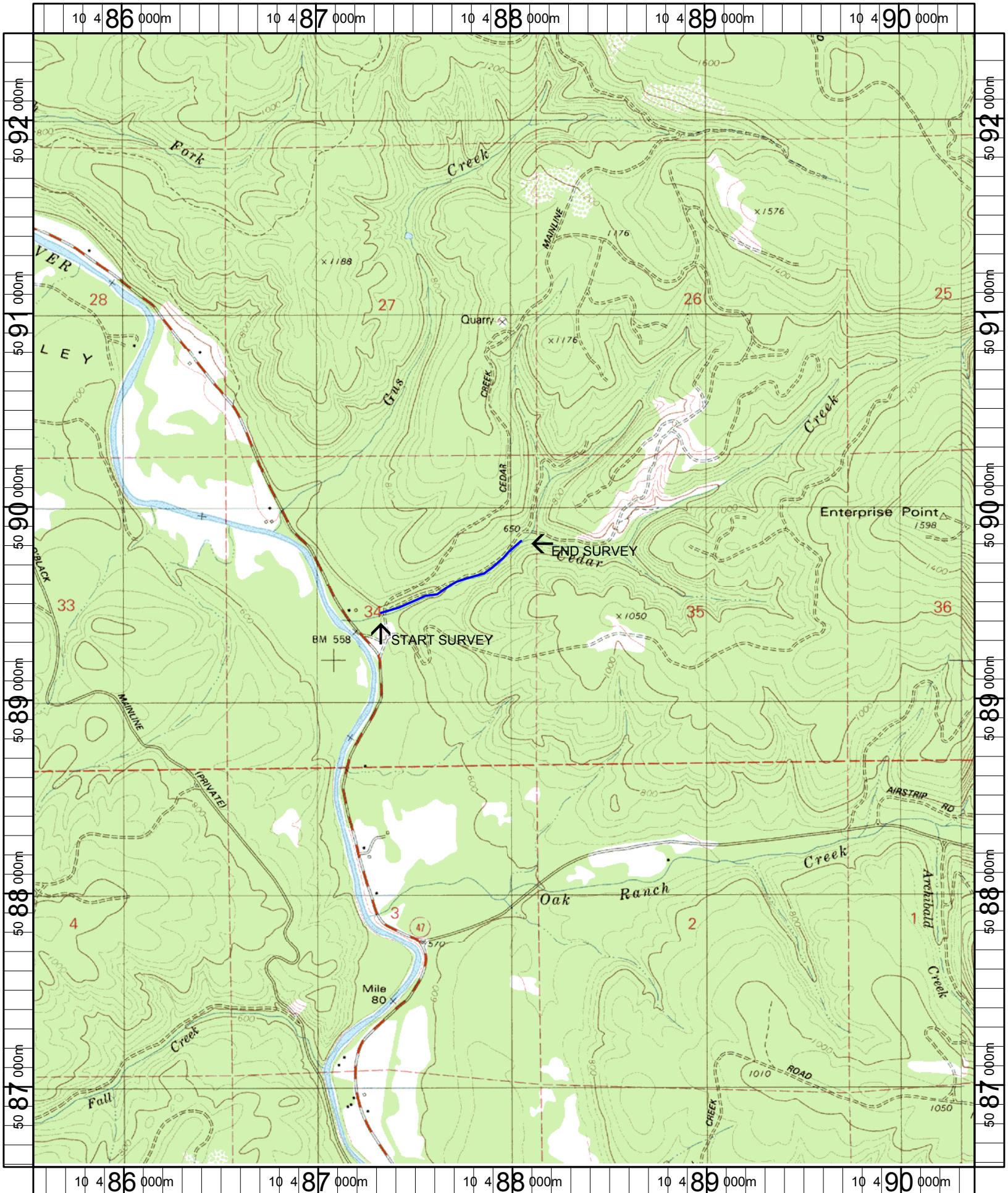
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
24	LF	1	HT	0	60	80	10	Conifer							POOR GPS COVERAGE
								Hardwood		2	1				
24	RT	3	HS	30	70	30	70	Conifer							
								Hardwood							
24	RT	2	HS	10	70	30	70	Conifer							
								Hardwood					1		
24	RT	1	HT	0	70	30	70	Conifer							
								Hardwood			1	2			
24	LF	2	HT	0	30	80	10	Conifer							
								Hardwood							
24	LF	3	HT	0	40	80	10	Conifer							
								Hardwood	4	1					
48	LF	1	HT	0	70	20	80	Conifer							POOR GPS COVERAGE
								Hardwood			2				
48	RT	3	HS	10	60	20	80	Conifer							VINE MAPLE
								Hardwood	4						
48	RT	2	HT	0	60	20	80	Conifer							VINE MAPLE
								Hardwood	7						
48	RT	1	HT	0	70	20	80	Conifer							
								Hardwood			2				
48	LF	2	HT	0	70	20	80	Conifer							
								Hardwood							
48	LF	3	HT	0	60	20	80	Conifer							VINE MAPLE
								Hardwood	4						
66	RT	3	HS	30	70	10	90	Conifer							
								Hardwood							
66	RT	2	HS	15	70	10	90	Conifer							
								Hardwood			3				
66	RT	1	HT	0	70	10	80	Conifer							
								Hardwood			1	2			
66	LF	3	HS	30	70	20	80	Conifer							
								Hardwood	1	2					
66	LF	2	RB	0	50	5	25	Conifer							
								Hardwood							
66	LF	1	HS	30	70	30	60	Conifer							POOR GPS COVERAGE
								Hardwood	2						

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 312      CEDAR CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
13	SC	00	127		H=0.5M	
15	SC	00	140		H=0.5M	
19	SC	00	179		H=0.35M	
23	SD	00	196	BV, BD	H=0.5M	
24	BP	00	218	BV		RIPARIAN 1
27	SL	00	235.5		H=0.35M	
29	SC	00	247		H=0.3M	
35	SC	00	276.5		H=0.3M	
45	SC	00	392		H=0.35M	
46	LP	01	405	/TJ		
47	RB	11	405		ACW 0.75M	
48	RB	00	462			RIPARIAN 2
66	RI	00	731.5			RIPARIAN 3
67	LP	01	744.5	DJ		
73	SC	00	775.5		H=0.2M	
77	SL	00	793		H=0.3M	
82	RI	01	891	DJ		
83	RI	02	891	DJ		
84	SD	00	891.5	BV, BD	H=0.3M	
85	BP	00	910.5	BV		
94	RR	00	1024.5			END AT TJ/



Name: PITTSBURG  
 Date: 6/9/2005  
 Scale: 1 inch equals 2000 feet

Location: 10 487961 E 5089513 N  
 Caption: CEDAR CREEK RESTORATION SITE - NEHALEM BASIN