

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

STREAM: Foley Creek (N-226)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: August 10, 2004
SURVEY CREW: Scott Young, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 44.1 km²
USGS MAPS: Nehalem
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Foley Creek habitat survey extended 777 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 10.0. Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 2.3 percent. Scour pools (51%) and rapids (30%) dominated stream habitat. Gravel (47%) and sand (33%) dominated stream substrate. Wood volume was low at 9.4 m³/100m.

COMMENTS:

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

REACH 1

T02N-R10W-S23SW

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	10.0	VWI Range:	10 - 10

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	777	2,232	0
Secondary	33	62	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.9	Width: 6.7	7.8 (6.7 - 9.3)	9.5 (8.2 - 11.1)
Depth: 0.36	Height: 0.4	0.8 (0.6 - 0.9)	1.0 (0.95 - 1.1)

W:D ratio: 17.4

Stream Flow Type: MF

Average Unit Gradient: 2.3%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 6.4

Habitat Units/100m (primary channel length): 6.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	M15	C50

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	11%	Reach avg: 91%
Undercut Banks:	5%	Range: 61 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	97	12.5
Volume (m ³):	73	9.4
Key pieces (>=12m x 0.60m):	4	0.5

OREGON DEPARTMENT OF FISH AND WILDLIFE

FOLEY CREEK PRE-TX (N-226)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

8/10/2004

REACH 1

T02N-R10W-S23SW

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
CULVERT CROSSING	1	9	3.0	0.10	27	0	5	30	50	15	0	0
POOL-LATERAL SCOUR	27	349	3.3	0.52	1,166	8	22	35	39	4	0	0
PUDDLED UNIT	1	8	2.0	0.50	17	0	32	37	32	0	0	0
RAPID/BOULDERS	12	266	2.4	0.24	690	0	9	30	50	11	0	0
RIFFLE	8	170	2.0	0.14	359	0	7	33	61	0	0	0
STEP/COBBLE	3	8	4.5	0.10	36	0	2	24	74	0	0	0
Total:	52	810	2.9	0.36	2,294	8	Avg: 15	33	47	5	0	0

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	27	349	3.3	0.52	1,166	50.81%	8	0.7
Glides	0	0			0	0.00%	0	0.0
Riffles	8	170	2.0	0.14	359	15.65%	0	0.0
Rapids	12	266	2.4	0.24	690	30.08%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	3	8	4.5	0.10	36	1.56%	0	0.0
Dry	1	8	2.0	0.50	17	0.72%	0	0.0
Culverts	1	9	3.0	0.10	27	1.18%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	27	33.3	34.8
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	8	9.9	10.3
Pool frequency (channel widths/pool):	4.5		
Residual pool depth (avg):	0.45		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	142
Total conifers/1000 ft	792
Total conifers >20" dbh/1000 ft	122
Total conifers >35" dbh/1000 ft	20

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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-30cm	1.7	0.0	1.0	0.3	1.0	0.0	3.7	0.3
30-50cm	2.7	0.0	2.3	0.3	2.3	1.3	7.3	1.7
50-90cm	0.7	0.3	0.7	0.0	0.3	0.0	1.7	0.3
>90cm	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Total/100m2	5.3	0.3	4.0	0.7	3.7	1.3	4.3	0.8

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	80		83		83	
Shrub cover	6		5		5	
Grass/forb cover	49		30		28	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		0		0	
High terrace	100		100		100	
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 (%)

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

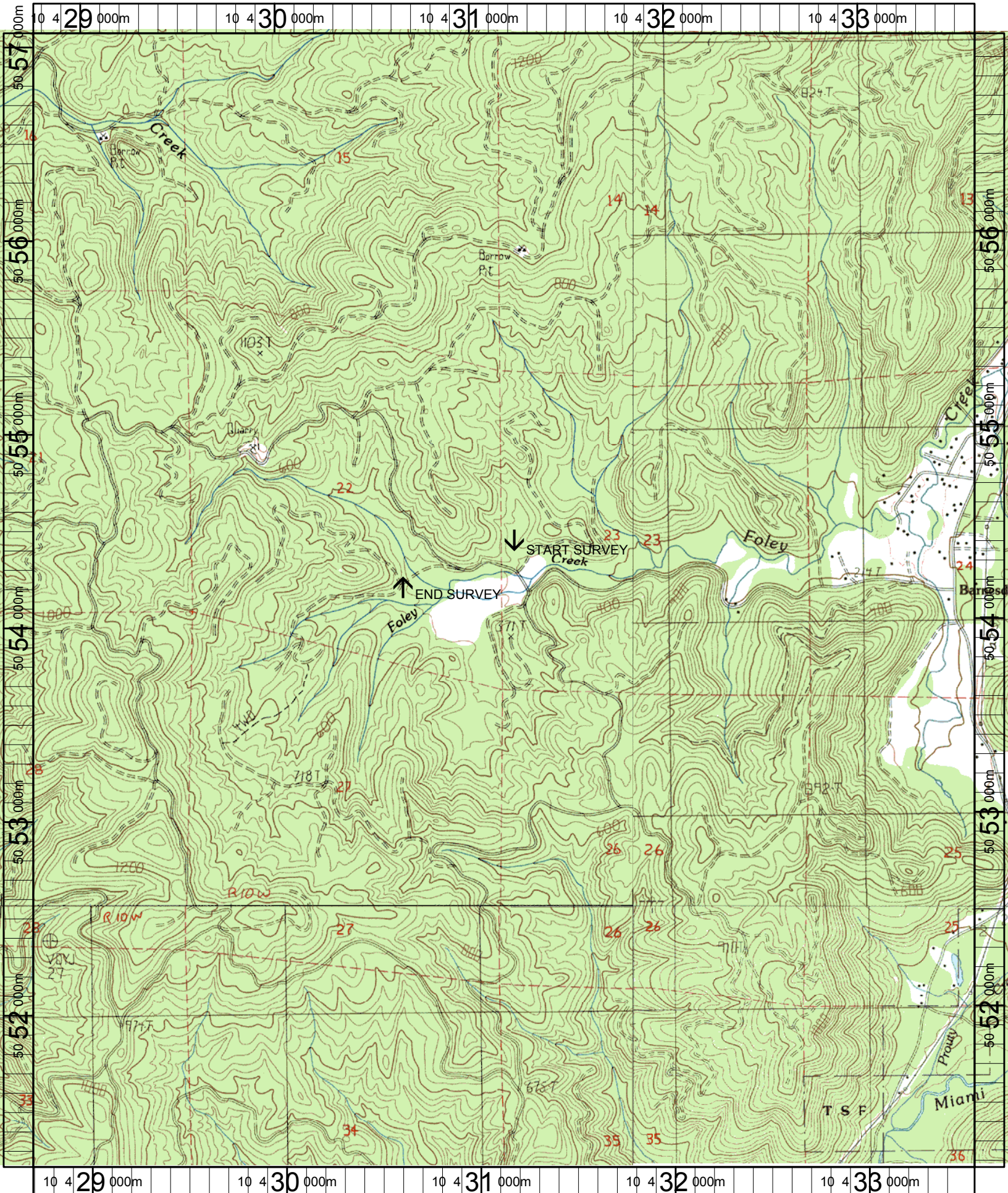
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
12	LF	2	HT		90	0	0	Conifer		2	1			
								Hardwood						
12	RT	2	HT		80	10	80	Conifer			1			
								Hardwood	1	1				
12	LF	3	HT		90	0	0	Conifer	1	2				
								Hardwood						
12	LF	1	HT		80	5	10	Conifer	2	3				10T 0431084 5054282
								Hardwood				1		
12	RT	3	HT		80	10	80	Conifer						
								Hardwood		1				
12	RT	1	HT		80	10	80	Conifer					1	
								Hardwood						
26	RT	3	HT		80	5	20	Conifer			1	1		
								Hardwood			1			
26	RT	2	HT		80	5	20	Conifer			2	1		
								Hardwood						
26	RT	1	HT		85	5	20	Conifer			1	1	1	
								Hardwood						
26	LF	3	HT		90	0	0	Conifer		2	2			
								Hardwood						
26	LF	2	HT		90	0	0	Conifer		1	2			
								Hardwood						
26	LF	1	HT		85	10	10	Conifer		3	2			DENSE CONIFERS 0430982 10T 0420774 5054251
								Hardwood						
44	LF	1	HT		80	5	85	Conifer						
								Hardwood						
44	RT	2	HT		80	10	45	Conifer						
								Hardwood						
44	RT	1	HT		70	1	90	Conifer			2			
								Hardwood						
44	LF	2	HT		80	5	35	Conifer			1	1		
								Hardwood						
44	RT	3	HT		80	10	35	Conifer						
								Hardwood			2			
44	LF	3	HT		80	5	35	Conifer			2			
								Hardwood						

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 226 FOLEY CREEK PRE-TX (N-226)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	LP	00	39.1	BC, CS		
12	RB	00	236.3		10T 0431084 5054282	
26	RB	00	421.2		10T 0430982 5054209 RIP	
37	SC	00	580.45		H=.20M	
39	SC	00	593.8		H=.35M	
40	LP	01	608.8	/TJ		
44	RB	00	660.6		10T 0430774 5054251	
49	RB	01	756.7	TJ/		
51	CC	00	765.7	CC		
52	RB	00	776.7		GRAVEL IN BOTTOM 10T	



Name: NEHALEM
 Date: 6/14/2004
 Scale: 1 inch equals 2000 feet

Location: 10 431144 E 5054123 N
 Caption: FOLEY CREEK RESTORATION SITE - NEHALEM BASIN