

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

STREAM: Foley Creek (N-226)  
BASIN: Nehalem River  
SURVEY TYPE: Post-Tx  
DATE: August 22, 2005  
SURVEY CREW: Scott Young, Ben Walczak  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 44.1 km<sup>2</sup>  
USGS MAPS: Nehalem  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Foley Creek habitat survey extended 759 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.3 (range: 5.0-10.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.0 percent. Riffles (50%) and scour pools (46%) dominated stream habitat. Gravel (49%) and sand (29%) dominated stream substrate. Wood volume was moderate at 26.8 m<sup>3</sup>/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

T02N-R10W-S22SW

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	8.3	VWI Range:	5 - 10

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	759	2,813	0
Secondary Channel	9	26	1
Off-Channel Units	23	40	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 6
Width: 3.6	Width: 5.7	8.5 ( 1.75 - 14.2 )	11.4 ( 3 - 17.8 )
Depth: 0.37	Height: 0.2	0.4 ( 0.2 - 0.5 )	1.1 ( 1 - 1.3 )

W:D ratio: 25.1

Entrenchment (ACW:FPW ratio): 1.4

Stream Flow Type: LF

Habitat Units/100m (total channel length): 7.3

Average Unit Gradient: 1.0%

Habitat Units/100m (primary channel length): 7.6

Water temperature (°C): -

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	C30	

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	5%	Reach avg: 79%
Undercut Banks:	4%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	123	16.2
Volume (m <sup>3</sup> ):	203	26.8
Key pieces (>=12m x 0.60m):	6	0.8

OREGON DEPT OF FISH AND WILDLIFE

FOLEY CREEK POST-TX (1-NC, 226)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

8/22/2005

REACH 1		T02N-R10W-S22SW					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
CULVERT CROSSING	1	11	2.5	0.10	28	0	0	10	50	40	0	0
POOL-BACKWATER	1	3	1.5	0.20	5	0	70	30	0	0	0	0
POOL-LATERAL SCOUR	28	348	3.8	0.61	1,320	5	15	42	36	6	1	0
PUDDLED UNIT	1	9	3.0	0.10	26	0	0	11	56	33	0	0
RIFFLE	22	406	3.4	0.16	1,449	0	2	18	59	21	0	0
STEP/COBBLE	5	14	3.7	0.10	51	0	0	10	83	7	0	0
<b>Total:</b>	<b>58</b>	<b>791</b>	<b>3.6</b>	<b>0.37</b>	<b>2,878</b>	<b>5</b>	<b>Avg: 9</b>	<b>29</b>	<b>49</b>	<b>13</b>	<b>0</b>	<b>0</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	1	3	1.5	0.20	5	0.16%	0	0.0	
Scour Pools	28	348	3.8	0.61	1,320	45.87%	5	0.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	22	406	3.4	0.16	1,449	50.36%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	5	14	3.7	0.10	51	1.77%	0	0.0	
Dry	1	9	3.0	0.10	26	0.89%	0	0.0	
Culverts	1	11	2.5	0.10	28	0.96%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	29	36.7	38.2
Pools >=1m deep:	1	1.3	1.3
Complex pools (LWD pieces>=3):	11	13.9	14.5
Pool frequency (channel widths/pool):	4.8		
Residual pool depth (avg):	0.51		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

FOLEY CREEK POST-TX  
GCG: 1-NC SITE ID: 226

Survey Date 8/22/2005  
Report Date: 4/26/2006

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	122
Total conifers/1000 ft	488
Total conifers >20" dbh/1000 ft	41
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-30cm	0.3	1.0	1.3	0.0	1.7	0.0	3.3	1.0
30-50cm	1.0	0.7	1.3	0.0	1.7	0.3	4.0	1.0
50-90cm	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.0	1.7	2.7	0.0	3.3	0.3	2.7	0.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	80		80		80	
Shrub cover	4		6		5	
Grass/forb cover	86		69		72	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		17		17	
High terrace	83		83		83	
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 (%)	1		3		5	

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	122
Total conifers/1000 ft	488
Total conifers >20" dbh/1000 ft	41
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	0.0
15-30cm	3.3	1.0
30-50cm	4.0	1.0
50-90cm	0.7	0.0
>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		
20	RT	3	HS	30	75	15	85	Conifer			1			
								Hardwood						
20	LF	1	HT	0	85	5	95	Conifer		1		1		2D 0431627/50529 85
								Hardwood						
20	LF	2	HT	0	85	5	95	Conifer		2				
								Hardwood						
20	LF	3	HT	0	85	5	95	Conifer		2				
								Hardwood						
20	RT	2	HS	20	75	15	85	Conifer				2		
								Hardwood						
20	RT	1	HS	5	80	5	95	Conifer				3		
								Hardwood						
31	RT	3	HT	0	80	0	60	Conifer		1	1			3D 0430977/50542 02
								Hardwood						
31	RT	2	HT	0	80	0	50	Conifer				1		
								Hardwood						
31	RT	1	HT	0	80	0	50	Conifer					1	CONIFEROUS FOREST FLOOR
								Hardwood						
31	LF	3	HT	0	85	0	0	Conifer				1		
								Hardwood						
31	LF	2	HT	0	85	0	0	Conifer		1	1			FOREST FLOOR
								Hardwood						
31	LF	1	HT	0	80	0	90	Conifer						BARE SOIL, CONIFEROUS
								Hardwood		2				
49	LF	2	HT	0	80	5	95	Conifer		1				
								Hardwood						
49	LF	3	HT	0	80	5	95	Conifer			2	1		
								Hardwood				1		
49	RT	1	HT	0	75	10	90	Conifer						
								Hardwood		1	1			
49	RT	2	HT	0	75	10	90	Conifer						
								Hardwood						
49	RT	3	HT	0	75	5	95	Conifer				1		
								Hardwood						
49	LF	1	HT	0	80	5	95	Conifer						3D 0430813/50542 60
								Hardwood			1			

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 226      FOLEY CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
2	LP	00	34.9	CS/ BC		
3	SC	00	36.9		H = 0.15M	
7	LP	00	89	HS		
8	RI	00	115.3	HS		
11	LP	00	150.1	HS		
12	RI	00	180	HS		
13	LP	00	190.2	HS		
14	SC	00	193.2		H = 0.25M	
16	RI	00	238.7			GOOD POCKETS
18	LP	00	267.5	HS		
19	LP	00	277.4	HS		
20	RI	00	289.4	HS	RIP 1	
22	RI	00	323	HS		
25	SC	00	345.4		H = 0.15M	
31	RI	00	429.1		RIP 2	NICE POCKETS
40	SC	00	550.1		H = 0.2M	
45	SC	01	596.55	/TJ	H = 0.2M	
49	LP	00	626.25		RIP 3	
50	RI	00	644.95	HS		
51	LP	00	660.55	HS		
52	LP	00	673.25	HS		

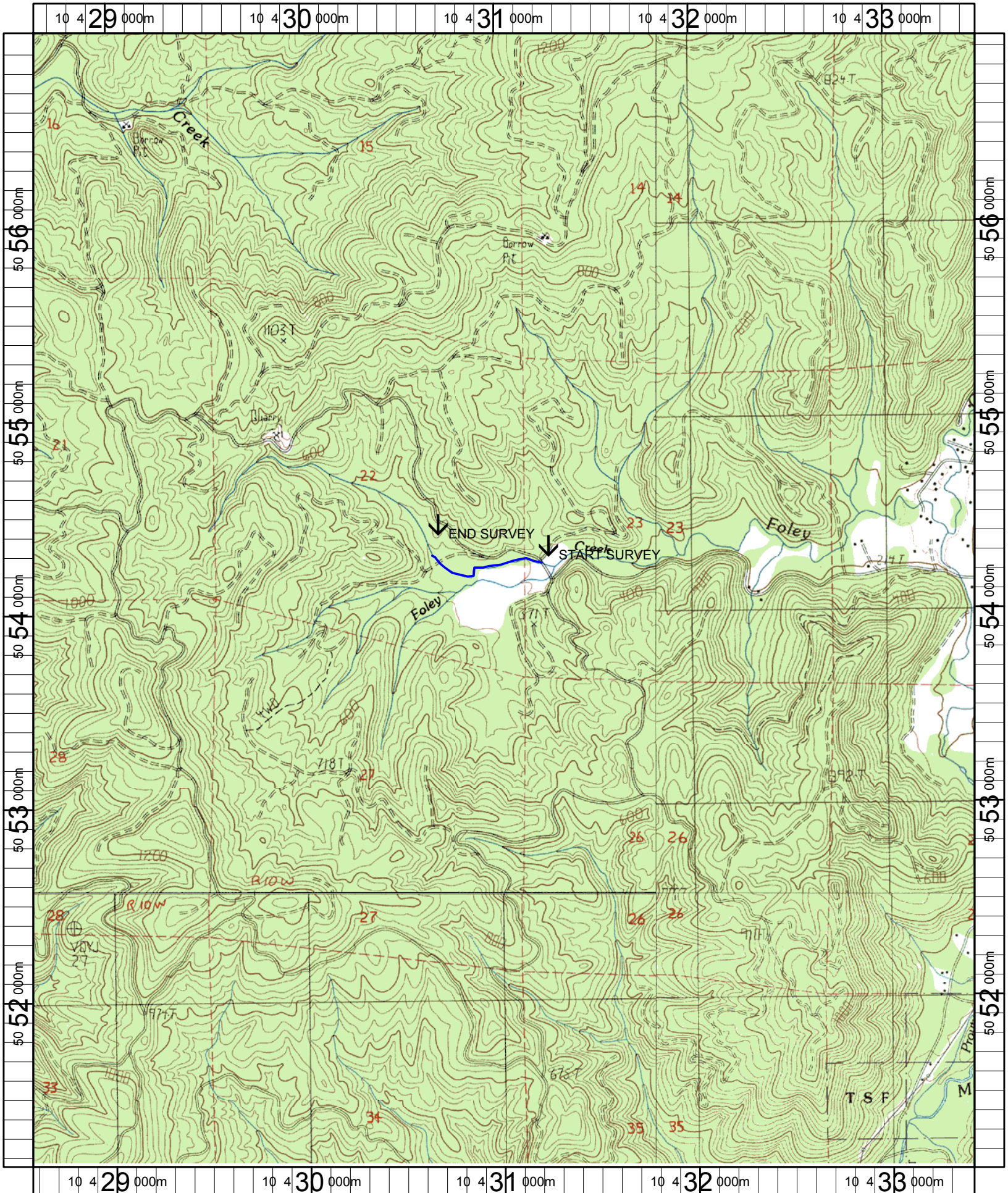
# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 226      FOLEY CREEK POST-TX

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
54	LP	00	704.55	HS		
55	RI	01	740.25	TJ/ HS		
56	RI	11	740.25			TRIB UNIT
57	CC	00	751.25	CC		CULVERT 2M DIAMETER





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

Location: 10 431022 E 5054058 N  
 Caption: FOLEY CREEK RESTORATION SITE - NEHALEM BASIN