

**ODFW AQUATIC INVENTORY PROJECT
RESTORATION MONITORING
STREAM HABITAT REPORT**

STREAM: FISHHAWK CREEK
 GCG: 1-NC
 SITE ID: 390
 BASIN: NEHALEM
 TREATMENT DATE: 2008
 SURVEY DATE: 7/1/2008
 SURVEY CREW: Jitesh Pattni / Aaron Paloni
 USGS MAPS: NICOLAI MOUNTAIN
 ECOREGION: Willapa Hills
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): Second growth timber (15-30 cm dbh)
 Dominant riparian vegetation: Deciduous trees: size class 15-30cm dbh
 Primary channel length (meters) and area (m²): 503 : 1,796
 Secondary channel length (meters) and area (m²) 0 : 0
 VWI average: 9.0 VWI Range: 5 - 10 Average Gradient: 0.8%
 Pieces LWD per 100m: 7.4 Wood Volume (m³) per 100m: 4.9
 Percent pools: 58% Complex pools (LWD pieces>=3): 5 Pools >=1m deep: 2
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	45	30	25	1	0	0
Pool units	49	30	21	0	0	0
Fast water units	40	30	29	1	0	0

COMMENTS:

This is a pre-treatment, restoration survey. The crew noted the presence of amphibians during the survey.

**OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY**

**FISHHAWK CREEK
GCG: 1-NC SITE ID: 390**

Survey Date: 7/1/2008

Report Date: 12/29/2008

T07S-R06W-S25SW

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	9.0	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	503	1,796	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.5	Width: 5.8	6.5 (5.3 - 8.1)	7.4 (6.4 - 8.9)
Depth: 0.50	Height: 0.5	1.0 (0.9 - 1.1)	2.2 (1.2 - 5.5)

W:D ratio: 11.7

Stream Flow Type: LF

Average Unit Gradient: 0.8%

Water temperature (°C): 11.0 - 11.0

Entrenchment (ACW:FPW ratio): 1.1

Habitat Units/100m (total channel length): 4.8

Habitat Units/100m (primary channel length): 4.8

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 95%
Undercut Banks:	2%	Range: 86 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	37	7.4
Volume (m ³):	24	4.9
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

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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
POOL-LATERAL SCOUR	13	274	3.6	0.73	1,046	0	49	30	21	0	0	0
RIFFLE	11	229	3.3	0.23	750	0	40	30	29	1	0	0
Total:	24	503	3.5	0.50	1,796	0	Avg: 45	30	25	1	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	13	274	3.6	0.73	1,046	58.23%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	11	229	3.3	0.23	750	41.77%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	0	0			0	0.00%	0	0.0
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	25.8	25.8
Pools >=1m deep:	2	4.0	4.0
Complex pools (LWD pieces>=3):	5	9.9	9.9
Pool frequency (channel widths/pool):	6.6		
Residual pool depth (avg):	0.53		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

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RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	813
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	0.3	0.0	1.7	0.0	2.0	0.0	4.0
15-30cm	0.0	0.7	0.0	1.3	0.0	1.0	0.0	3.0
30-50cm	0.0	2.0	0.0	2.3	0.0	1.0	0.0	5.3
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	3.7	0.0	5.7	0.0	4.0	0.0	4.4

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	95	88	92
Shrub cover	78	85	83
Grass/forb cover	18	11	13

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	17	17
High terrace	100	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 (%)	0	2	2

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	813
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	4.0
15-30cm	0.0	3.0
30-50cm	0.0	5.3
50-90cm	0.0	1.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

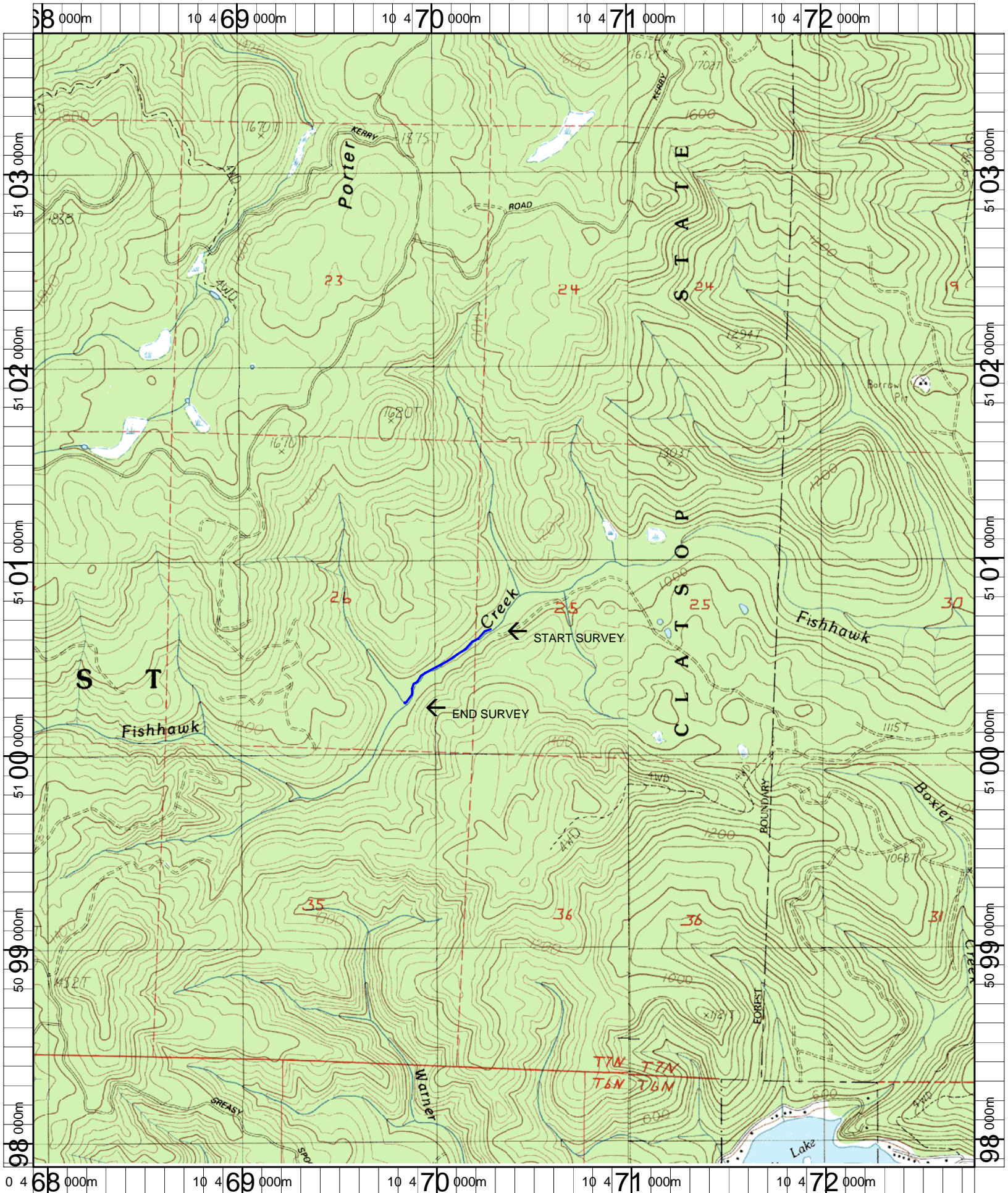
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
7	LT	1	HT	0	95	70	30	Conifer							
								Hardwood			2	1			
7	LT	2	HT	0	80	90	10	Conifer							
								Hardwood			1				
7	LT	3	HT	0	90	90	10	Conifer							
								Hardwood	1						
7	RT	1	HT	0	95	90	5	Conifer							
								Hardwood	1						
7	RT	2	HT	0	95	100	0	Conifer							
								Hardwood				1			
7	RT	3	HT	0	100	90	10	Conifer							
								Hardwood	1						
15	LT	1	HT	0	95	90	0	Conifer							
								Hardwood				1			
15	LT	2	HT	0	70	90	5	Conifer							
								Hardwood							
15	LT	3	HT	0	85	85	10	Conifer							
								Hardwood		1					
15	RT	1	HT	0	95	80	15	Conifer							
								Hardwood			1				
15	RT	2	HS	13	95	50	40	Conifer							
								Hardwood	3	3					
15	RT	3	HS	14	95	50	40	Conifer							
								Hardwood	4	2					
23	LT	1	HT	0	95	95	0	Conifer							
								Hardwood			1	2			
23	LT	2	HT	0	95	95	0	Conifer							
								Hardwood	2	1	2				
23	LT	3	HT	0	90	90	0	Conifer							
								Hardwood				3			
23	RT	1	HT	0	95	45	55	Conifer							
								Hardwood				2			
23	RT	2	HT	0	95	85	10	Conifer							
								Hardwood				4			
23	RT	3	HT	0	90	90	10	Conifer							
								Hardwood							

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 390 STREAM: FISHHAWK CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
17	RI	00	366	SS/	



Name: NICOLAI MT
 Date: 12/18/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0470358 E 5100793 N NAD 27
 Caption: FISHHAWK CREEK RESTORATION SURVEY - NEHALEM BASIN