

**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: 3/25/2009
 SURVEY CREW: Ryan Jacobsen / Miles Johnson
 USGS MAPS: NICOLAI MOUNTAIN
 ECOREGION: Willapa Hills
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T07S-R06W-S25SW

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 30-50cm dbh
 Primary channel length (meters) and area (m²): 562 : 2,590
 Secondary channel length (meters) and area (m²) 197 : 1,533
 VWI average: 13.3 VWI Range: 9 - 20 Average Gradient: 0.2%
 Pieces LWD per 100m: 22.2 Wood Volume (m³) per 100m: 33.0
 Percent pools: 52% Complex pools (LWD pieces>=3): 12 Pools >=1m deep: 3
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	35	32	29	3	0	1
Pool units	31	36	28	3	0	2
Fast water units	21	25	47	7	0	0

SURVEY COMMENTS:

The Fishhawk Creek survey is a post-treatment, restoration site. The crew noted habitat structures that included alcoves throughout the first half of the survey. They also noted recent beaver activity near the end of the survey. There were no potential barriers to upstream fish migration observed within the survey reach.

Survey Date: 3/25/2009

Report Date: 2/16/2010

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	13.3	VWI Range:	9 - 20

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	562	2,590	0
Secondary	197	1,533	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 4.8	Width: 5.4	6.6 (6 - 7.5)	7.6 (7 - 9)
Depth: 0.82	Height: 0.6	1.3 (1.2 - 1.4)	1.5 (1.4 - 1.5)

W:D ratio: 8.7

Stream Flow Type: MF

Average Unit Gradient: 0.2%

Water temperature (°C): 5.0 - 5.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 4.3

Habitat Units/100m (primary channel length): 5.9

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	125	22.2
Volume (m ³):	185	33.0
Key pieces (>=12m x 0.60m):	8	1.4

OREGON DEPT 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
CASCADE/BOULDERS	1	8	0.5	0.02	4	0	5	15	80	0	0	0
POOL-BACKWATER	1	110	5.0	0.90	550	0	80	10	10	0	0	0
POOL-ISOLATED	4	67	7.4	0.28	943	0	66	26	8	0	0	0
POOL-LATERAL SCOUR	22	471	4.7	1.03	2,160	0	31	36	28	3	0	2
RIFFLE	5	103	4.4	0.48	467	0	24	26	41	8	0	0
Total:	33	759	4.8	0.82	4,123	0	Avg: 35	32	29	3	0	1

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	5	177	6.9	0.40	1,493	36.20%	0	0.0
Scour Pools	22	471	4.7	1.03	2,160	52.39%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	5	103	4.4	0.48	467	11.31%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	8	0.5	0.02	4	0.10%	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

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	27	35.6	48.0
Pools >=1m deep:	13	17.1	23.1
Complex pools (LWD pieces>=3):	12	15.8	21.4
Pool frequency (channel widths/pool):	5.2		
Residual pool depth (avg):	0.62		

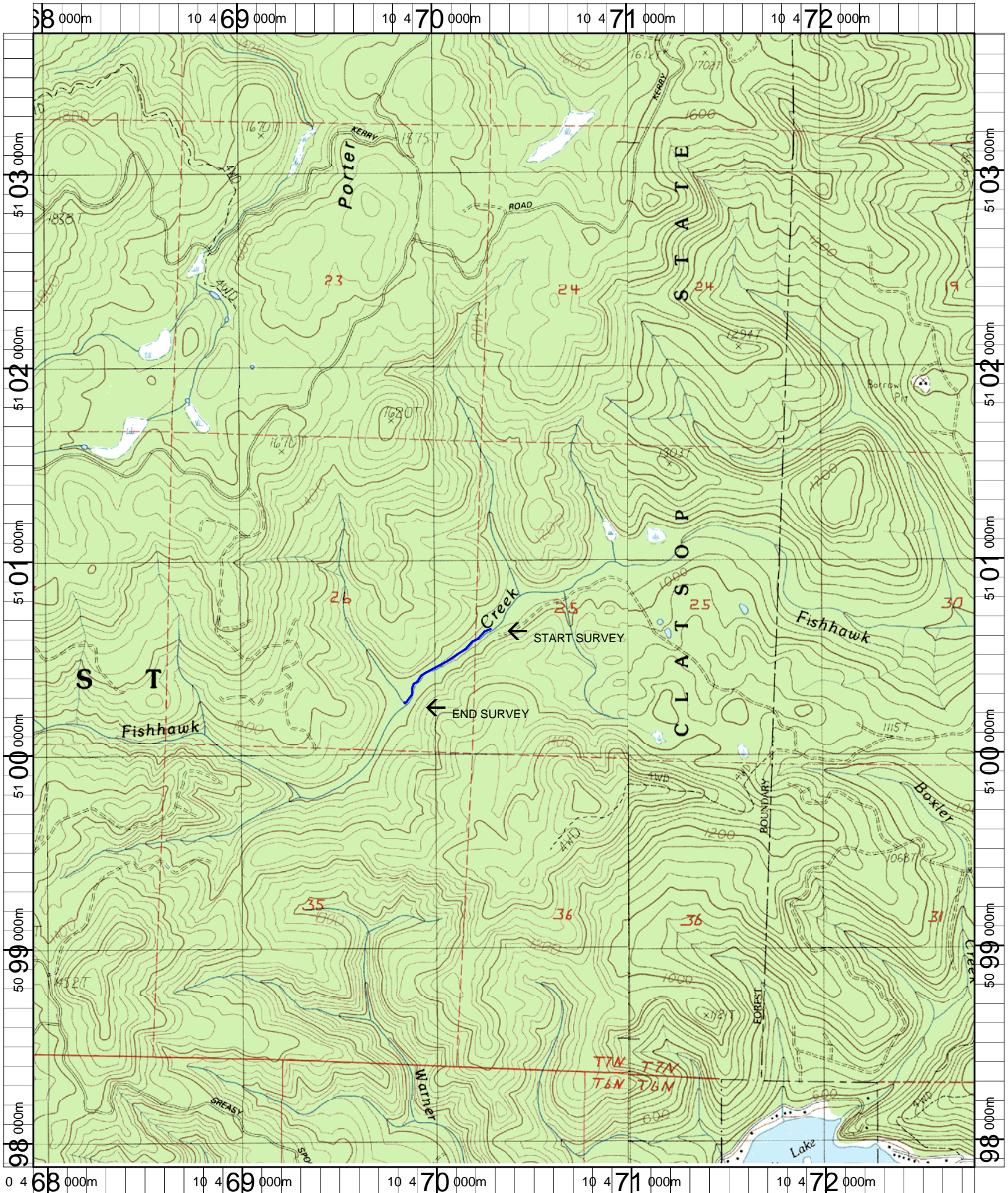
OREGON DEPT OF FISH AND WILDLIFE
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OREGON PLAN MONITORING SITE
SURVEY DATE: 3/25/2009

COMMENT SUMMARY

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

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	LP	01	22.5	BW\	CT\CT D30\S STLT
1	5	LP	00	103.5		T=5.5C
1	7	IP	10	129.5	SS\	
1	15	LP	00	289.5	\SS	
1	17	LP	00	305	HS	
1	18	LP	00	334	HS	
1	21	RI	01	398	TJ\	
1	22	CB	11	398		ACW=1M, T=4.5C
1	26	LP	00	472.5	BV	NEW BV STICK
1	30	LP	00	529.5	BV	NEW BV STICKS
1	31	LP	00	545	BV	NEW BV STICKS
1	32	LP	01	562	\TJ	END OF SURVEY, CT\CT D30\S ST\
1	33	RI	11	562		ACW=3.3M, T=5C



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

Fishhawk Creek (NC-390) 2009 Winter Habitat Survey Photographs



Unit 1 - A upstream view of the Fishhawk Creek survey start.



Unit 1 - Looking downstream from the survey start at bridge crossing.



Unit 2 - Backwater with large wood.



Unit 2 - Backwater



Unit 2 - Backwater



Unit 8 - Large wood placement for habitat structure.