

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

STREAM: FISHHAWK CREEK TRIBUTARY  
 GCG: 1-NC  
 SITE ID: 395  
 BASIN: NEHALEM  
 TREATMENT DATE: 2008  
 SURVEY DATE: 7/1/2008  
 SURVEY CREW: Jitesh Pattni / Aaron Paloni  
 USGS MAPS: VINEMAPLE  
 ECOREGION: Willapa Hills  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces

Dominant landuse(s): Conservation area or wildlife refuge.

Dominant riparian vegetation: Mixed conifer/deciduous: size class 30-50cm dbh

Primary channel length (meters) and area (m<sup>2</sup>): 504 : 646

Secondary channel length (meters) and area (m<sup>2</sup>) 7 : 15

VWI average: 13.6 VWI Range: 2 - 20 Average Gradient: 2.1%

Pieces LWD per 100m: 24.2 Wood Volume (m<sup>3</sup>) per 100m: 32.4

Percent pools: 8% Complex pools (LWD pieces>=3): 2 Pools >=1m deep: 0

Percent substrate (avg):	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	30	27	27	17	0	0
Pool units	32	24	30	13	0	0
Fast water units	24	27	28	21	0	0

**COMMENTS:**

This is a pre-treatment, restoration survey. The crew noted a removed cement culvert approximately 70 meters from the beginning of the survey. Evidence of amphibians during the survey included several pacific treefrogs.

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

**FISHHAWK CREEK TRIBUTARY  
GCG: 1-NC SITE ID: 395**

**Survey Date: 7/1/2008**

**Report Date: 12/29/2008**

**T05N-R07W-S04SE**

**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	13.6	VWI Range:	2 - 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	504	646	0
Secondary	7	15	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 1.4	Width: 2.2	2.9 ( 1.2 - 5 )	4.0 ( 1.4 - 6 )
Depth: 0.26	Height: 0.4	0.7 ( 0.6 - 0.8 )	1.1 ( 0.9 - 1.6 )

W:D ratio: 6.0

Stream Flow Type: LF

Average Unit Gradient: 2.1%

Water temperature (°C): 10.0 - 10.0

Entrenchment (ACW:FPW ratio): 1.4

Habitat Units/100m (total channel length): 3.3

Habitat Units/100m (primary channel length): 3.4

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	CR	
Riparian Vegetation:	M30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 88%
Undercut Banks:	0%	Range: 50 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	122	24.2
Volume (m <sup>3</sup> ):	163	32.4
Key pieces (>=12m x 0.60m):	13	2.6

OREGON DEPARTMENT OF FISH AND WILDLIFE

FISHHAWK CREEK TRIBUTARY

HABITAT INVENTORY

GCG: 1-NC SITE ID: 395

Survey Date: 7/1/2008

Report Date: 12/29/2008 T05N-R07W-S04SE 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-ALCOVE	1	4	2.5	0.50	10	0	67	24	10	0	0	0
POOL-ISOLATED	1	3	1.5	0.15	5	0	50	30	20	0	0	0
POOL-LATERAL SCOUR	3	25	2.0	0.53	55	0	32	24	30	13	0	0
RAPID/BOULDERS	1	26	0.8	0.20	21	0	11	22	28	39	0	0
RIFFLE	11	453	1.3	0.19	570	0	25	27	28	19	0	0
<b>Total:</b>	<b>17</b>	<b>511</b>	<b>1.4</b>	<b>0.26</b>	<b>661</b>	<b>0</b>	<b>Avg: 30</b>	<b>27</b>	<b>27</b>	<b>17</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	2	7	2.0	0.33	15	2.20%	0	0.0
Scour Pools	3	25	2.0	0.53	55	8.33%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	11	453	1.3	0.19	570	86.33%	0	0.0
Rapids	1	26	0.8	0.20	21	3.15%	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
	Total	# / Km	# / Km
All Pools:	5	9.8	9.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	3.9	4.0
Pool frequency (channel widths/pool):	47.3		
Residual pool depth (avg):	0.42		

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

**FISHHAWK CREEK TRIBUTARY  
GCG: 1-NC SITE ID: 395**

**Survey Date 7/1/2008  
Report Date: 12/29/2008**

**RIPARIAN ZONE  
VEGETATION SUMMARY**

**REACH 1**

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

Total hardwoods/1000 98  
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	0.0	0.0	0.0	0.0	0.4	0.0
15-30cm	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4
30-50cm	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.8
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	0.4	0.0	0.8	0.0	0.4	0.0	0.5

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	Conifer (%)		Conifer (%)		Conifer (%)	
	Canopy closure	65	70	65	70	65
Shrub cover	19	17	21	17	21	17
Grass/forb cover	81	83	79	83	79	83

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	Conifer (%)		Conifer (%)		Conifer (%)	
	Hillslope	0	20	20	20	20
High terrace	60	40	40	40	40	40
Low terrace	40	40	40	40	40	40
Floodplain	0	0	0	0	0	0
Wetland/meadow	0	0	0	0	0	0
Stream channel	0	0	0	0	0	0
Roadbed/Railroad	0	0	0	0	0	0
Riprap	0	0	0	0	0	0
Surface slope (%)	0	4	4	4	4	4

**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	98
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	0.4
15-30cm	0.0	0.4
30-50cm	0.0	0.8
50-90cm	0.0	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

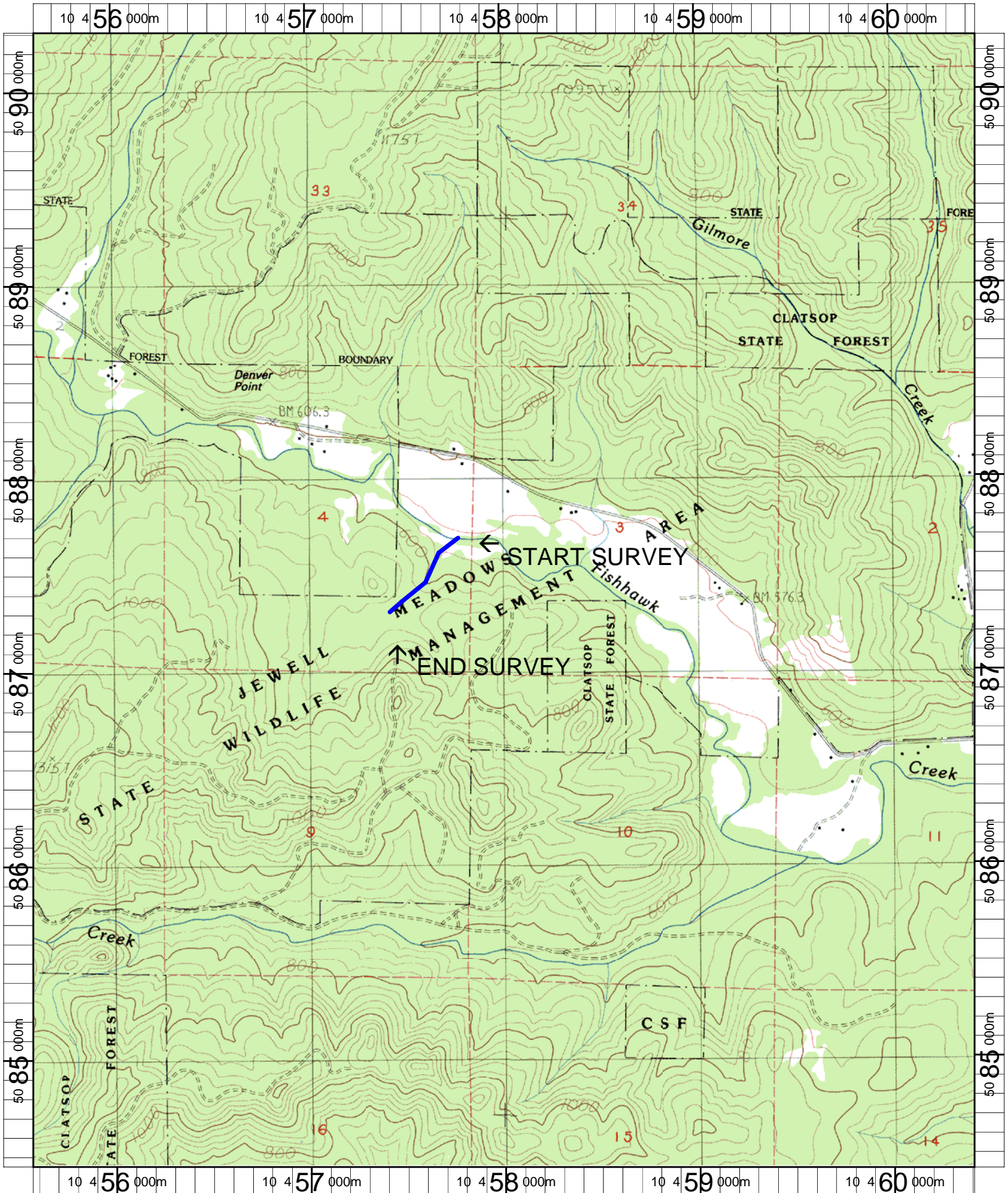
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)			Diameter class (cm)					Notes					
					Canopy	Shrub	Grass	3-15	15-30	30-50	50-90	>90						
7	LT	1	LT	0	5	5	95											
																		Conifer Hardwood
7	LT	2	LT	0	0	0	100											Conifer Hardwood
7	LT	3	LT	0	0	0	100											Conifer Hardwood
7	RT	1	LT	0	60	75	25											Conifer Hardwood
7	RT	2	LT	0	75	75	25											Conifer Hardwood
7	RT	3	LT	0	75	75	25											Conifer Hardwood
10	LT	1	HT	0	100	5	95											Conifer Hardwood
10	LT	2	HT	0	95	0	100											Conifer Hardwood
10	LT	3	HT	0	90	10	90											Conifer Hardwood
14	LT	1	HT	0	90	10	90											Conifer Hardwood
14	LT	2	HS	22	90	0	100											Conifer Hardwood
14	LT	3	HS	22	85	10	90											Conifer Hardwood
14	RT	1	HT	0	70	0	100											Conifer Hardwood
14	RT	2	HT	0	90	10	90											Conifer Hardwood
14	RT	3	HT	0	75	10	90											Conifer Hardwood

**COMMENT SUMMARY**

MONITORING AREA: 1-NC      SITE ID: 395      STREAM: FISHHAWK CREEK TRIBUTARY

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	10		CT/CT S/P
2	RI	01	60		SINKING IN MUCK
4	RI	00	70		OLD CEMENT CULVERT THAT HAS BEEN REMOVED
5	LP	00	80		POOL FORMED BY ROOTWAD WHEN TREE WAS UPROOTED
6	RI	00	120	AM	PACIFIC TREEFROG
7	LP	00	125		CT/CT P/S
9	RI	00	210	AM	PACIFIC TREEFROG
10	RI	00	260		CT/CT P/D30
12	IP	10	310		SPRING FED
14	RI	00	376		CT/CT P/D15
17	RI	00	504		CH/MV P/D15



Name: VINEMAPLE  
 Date: 1/2/2008  
 Scale: 1 inch equals 2000 feet

Location: 10 0458004 E 5087368 N NAD 27  
 Caption: FISHHAWK CREEK TRIBUTARY RESTORATION SITE -  
 NEHALEM BASIN