

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

STREAM: Fishhawk Creek (N-345)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: August 14, 2006
SURVEY CREW: Gordon Rose, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 60.8 km²
USGS MAPS: Vinemaple
ECOREGION: Coast Range Willapa Hills

GENERAL DESCRIPTION:

The Fishhawk Creek habitat survey extended 2,882 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.0 (range: 5.0-10.0). Land use for the reach was light grazing. The average unit gradient was 0.6 percent. Scour pools (62%) and riffles (29%) dominated stream habitat. Gravel (35%) and cobble (30%) dominated stream substrate. Wood volume was very low at 9.6 m³/100m.

COMMENTS:

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

REACH 1

T05N-R07W-S10NE

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	8.0	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 Channel	2,882	33,531	0
Secondary Channel	575	1,990	10
Off-Channel Units	56	98	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 9.5	Width: 18.9	21.6 (18.8 - 27.1)	26.7 (20.8 - 31.3)
Depth: 0.39	Height: 1.2	2.3 (2 - 2.4)	2.7 (2.5 - 3)

W:D ratio: 16.3

Entrenchment (ACW:FPW ratio): 1.1

Stream Flow Type: LF

Habitat Units/100m (total channel length): 2.7

Average Unit Gradient: 0.6%

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

Water temperature (°C): 16.0 - 16.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LG	
Riparian Vegetation:	G	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	34%	Reach avg: 56%
Undercut Banks:	9%	Range: 36 - 83

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	243	8.4
Volume (m ³):	276	9.6
Key pieces (>=12m x 0.60m):	7	0.2

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

8/14/2006

REACH 1		T05N-R07W-S10NE						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	
DRY CHANNEL	6	155	2.8	0.00	405	0	2	3	45	48	0	3	
POOL-BACKWATER	3	13	1.7	0.17	22	0	32	30	18	0	0	20	
POOL-ISOLATED	1	6	1.0	0.10	6	0	25	25	40	10	0	0	
POOL-LATERAL SCOUR	38	1,915	10.7	0.83	21,925	24	7	12	32	20	0	29	
PUDDLED UNIT	6	245	3.2	0.02	741	0	8	15	47	30	0	1	
RIFFLE	28	1,055	9.1	0.14	10,456	84	1	4	35	33	3	25	
STEP/COBBLE	12	125	15.7	0.06	2,065	20	0	0	41	54	2	3	
Total:	94	3,513	9.5	0.39	35,619	128	Avg: 5	8	35	30	1	20	

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	4	19	1.5	0.15	28	0.08%	0	0.0	
Scour Pools	38	1,915	10.7	0.83	21,925	61.55%	24	0.1	
Glides	0	0			0	0.00%	0	0.0	
Riffles	28	1,055	9.1	0.14	10,456	29.35%	84	0.8	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	12	125	15.7	0.06	2,065	5.80%	20	1.0	
Dry	12	400	3.0	0.01	1,146	3.22%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	42	12.0	14.6
Pools >=1m deep:	16	4.6	5.6
Complex pools (LWD pieces>=3):	16	4.6	5.6
Pool frequency (channel widths/pool):	4.4		
Residual pool depth (avg):	0.77		

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

**FISHHAWK CREEK -PRE TX
GCG: 1-NC SITE ID: 345**

**Survey Date 8/14/2006
Report Date: 3/5/2007**

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	203
Total conifers/1000 ft	20
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	0.7	0.0	0.0	0.0	0.0	0.0
15-30cm	0.0	0.7	0.3	0.0	0.0	0.0	0.3	0.7
30-50cm	0.0	1.3	0.0	0.7	0.0	0.0	0.0	2.0
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	2.7	0.3	0.7	0.0	0.0	0.1	1.1

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	42	44	48		
Shrub cover	1	10	25			
Grass/forb cover	99	90	75			

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	0	17		
High terrace	100	100	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	0	6			

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	203
Total conifers/1000 ft	20
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	0.7
15-30cm	0.3	0.7
30-50cm	0.0	2.0
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		
25	LF	1	HT	0	25	0	100	Conifer							0458929, 5086866 2D
								Hardwood	2	2					
25	LF	2	HT	0	80	0	100	Conifer							
								Hardwood							
25	LF	3	HT	0	60	0	100	Conifer							
								Hardwood							
25	RT	1	HT	0	15	0	100	Conifer							
								Hardwood							
25	RT	2	HT	0	25	0	100	Conifer							
								Hardwood							
25	RT	3	HT	0	60	0	100	Conifer							
								Hardwood							
40	LF	3	HT	0	85	70	30	Conifer							
								Hardwood							
40	RT	3	HT	0	0	0	100	Conifer							
								Hardwood							
40	RT	1	HT	0	60	0	100	Conifer							
								Hardwood				1			
40	LF	2	HT	0	85	40	60	Conifer		1					
								Hardwood				2			
40	LF	1	HT	0	85	5	95	Conifer							0458677, 5087339
								Hardwood				2			3D;RL FROG
40	RT	2	HT	0	10	2	100	Conifer							
								Hardwood							
68	LF	1	HT	0	50	0	100	Conifer							0458048, 5087616 2D
								Hardwood				1			
68	LF	2	HT	0	50	20	80	Conifer							
								Hardwood							
68	LF	3	HS	35	70	80	20	Conifer							
								Hardwood							
68	RT	1	HT	0	15	0	100	Conifer							
								Hardwood							
68	RT	2	HT	0	15	0	100	Conifer							
								Hardwood							
68	RT	3	HT	0	15	0	100	Conifer							
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 1-NC SITE ID: 345 FISHHAWK CREEK -PRE TX

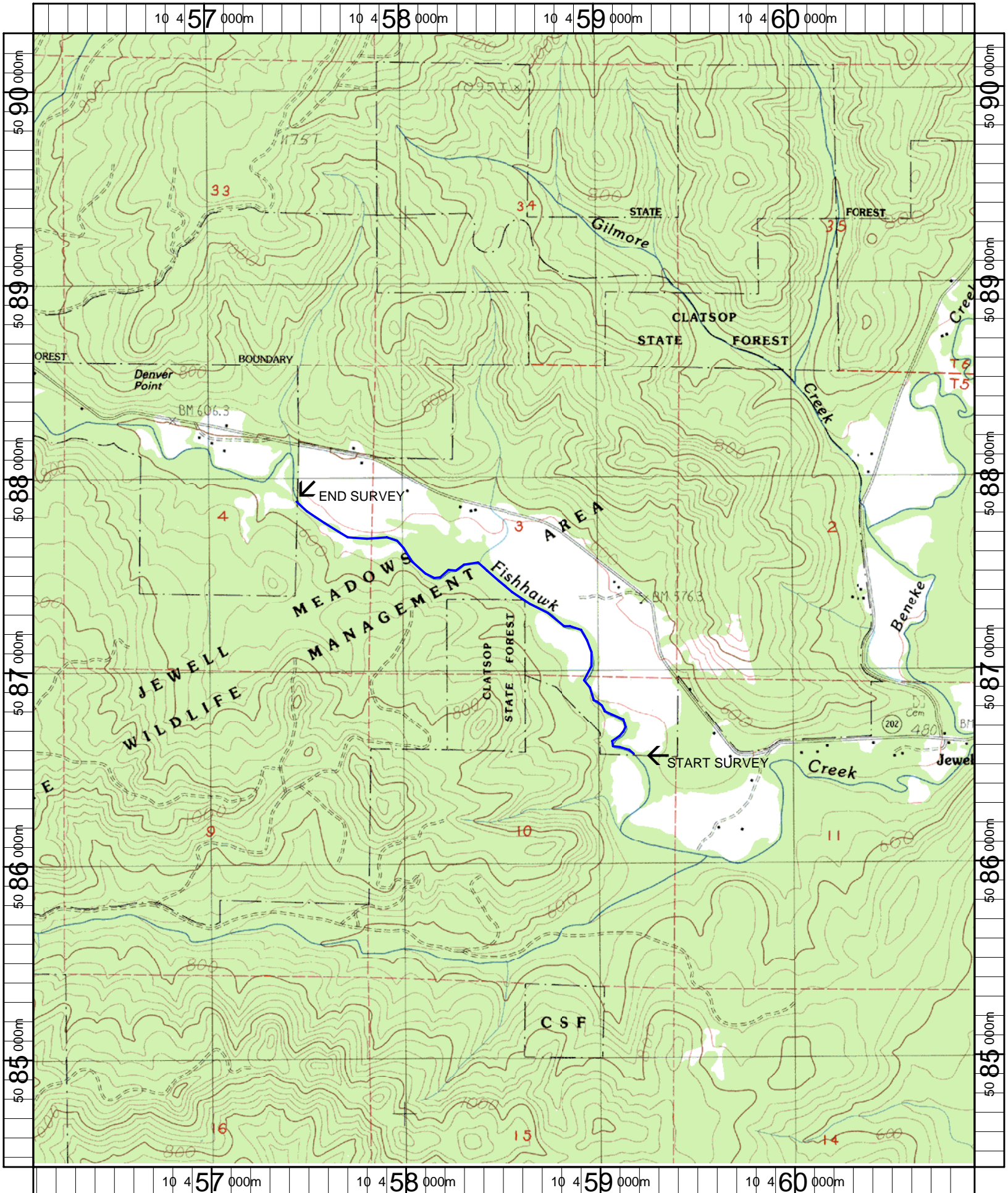
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	41		START @ WILDLIFE REFUG	
4	SC	01	118.5		H=0.5M	
6	LP	01	206		REARING END SIGN	
7	SC	01	219.5		H= 0.35M	
9	RI	01	288	RF		RF @ TOP OF UNIT
20	RI	03	481	WL		RED LEGGED FROG
24	SC	00	560		H=0.4M	
28	RI	00	832	RF		
29	LP	00	905		SPAWNING SURVEY SIGN	
30	SC	00	912		H=0.6M	
33	PD	02	1020	/TJ		TF
34	DC	11	1020			0458824; 5087226 2D
46	SC	01	1459.5		H=0.7M	
48	LP	01	1540	TJ/		
52	LP	00	1742.5	/SS		
55	SC	00	1826.5		H=0.4M	
56	LP	01	1914.5	EA/		
57	BW	10	1914.5			SILT OVER BEDROCK
59	SC	01	1973.5		H=0.35M	
66	LP	00	2074.5	EA/		
67	SC	00	2081.5		H=0.4M	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 1-NC SITE ID: 345 FISHHAWK CREEK -PRE TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
73	SC	00	2242.5		H=0.4M	
75	SC	00	2276		H=0.5M	
78	SC	01	2345		H=0.85M	
79	LP	02	2345	SS/		
81	LP	01	2407	/EA	SALMON SPAWNING SURVE	
83	SC	00	2415		H=0.7M	
85	RI	00	2521	RF		
92	RI	00	2781.5	EA/		
94	RI	00	2881.5		END SURVEY	



Name: VINEMAPLE
 Date: 5/22/2006
 Scale: 1 inch equals 2000 feet

Location: 10 458522 E 5087361 N
 Caption: FISHHAWK CREEK RESTORATION SITE - NEHALEM BASIN