

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

STREAM: Gods Valley Creek #4 Tributary A (NC-330)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: February 26, 2008
SURVEY CREW: Matt Weeber, Sharon Tippery
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 1.6 km²
USGS MAPS: Hamlet
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Gods Valley Creek #4 Tributary A habitat survey extended 1,318 meters. The channel was constrained by multiple terraces in a broad valley floor. The average valley width index was 7.2 (range: 1.5-12). Land use for the reach was young trees (3-15cm dbh) and second growth timber (15-30cm dbh). The average unit gradient was 1.0 percent. Scour pools (42%), riffles (30%) and dammed and backwater pools (24%) dominated stream habitat. Gravel (38%), sand (30%) and silt/organics (30%) dominated stream substrate. Wood volume was 17.8m³/100m.

COMMENTS:

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

Beaver activity, juvenile fish, and rough-skinned newts were observed during the survey.

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

**GODS VALLEY CREEK #4 (TRIB A)
GCG: 1-NC SITE ID: 330**

Survey Date: 2/26/2008

Report Date: 5/6/2008

T04N-R09W-S36NW

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	7.2	VWI Range:	1.5 - 12

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	1,318	3,592	0
Secondary	35	54	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 6
Width: 2.7	Width: 4.0	4.9 (3.8 - 5.8)	6.4 (4.8 - 8.4)
Depth: 0.42	Height: 0.3	0.6 (0.4 - 1.2)	1.1 (0.85 - 1.5)

W:D ratio: 14.3

Stream Flow Type: LF

Average Unit Gradient: 1.0%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 6.8

Habitat Units/100m (primary channel length): 7.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D30	P

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):	226	17.1
Volume (m ³):	235	17.8
Key pieces (>=12m x 0.60m):	3	0.2

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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-BACKWATER	3	6	2.3	0.27	14	0	83	17	0	0	0	0
POOL-BEAVER DAM	7	219	3.5	0.98	878	0	94	5	1	0	0	0
POOL-ISOLATED	2	5	1.0	0.20	5	0	98	3	0	0	0	0
POOL-LATERAL SCOUR	33	495	2.8	0.65	1,346	0	19	38	40	1	0	3
POOL-STRAIGHT SCOUR	7	71	3.1	0.66	211	0	18	54	27	0	0	1
RIFFLE	26	527	2.1	0.13	1,114	0	12	30	55	1	0	1
STEP/BEAVER DAM	6	7	4.2	0.05	27	0	84	11	4	1	0	0
STEP/COBBLE	7	21	2.2	0.09	50	0	9	18	70	1	0	2
STEP/LOG	1	1	3.0	0.10	2	0	30	30	40	0	0	0
Total:	92	1,353	2.7	0.42	3,646	0	Avg: 30	30	38	1	0	2

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	12	231	2.8	0.67	898	24.62%	0	0.0
Scour Pools	40	566	2.9	0.65	1,557	42.70%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	26	527	2.1	0.13	1,114	30.54%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	14	29	3.1	0.07	78	2.13%	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:	52	38.4	39.5
Pools >=1m deep:	5	3.7	3.8
Complex pools (LWD pieces>=3):	19	14.0	14.4
Pool frequency (channel widths/pool):	6.5		
Residual pool depth (avg):	0.59		

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 330 STREAM: GODS VALLEY CREEK #4 (TRIB A)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	LP	00	20.4		FISH SP?, JUVENILES
7	LP	00	113.8		HARDPAN
17	LP	00	214.1		JUVENILE FISH SP?
20	LP	00	245.9		LP X2
25	LP	00	289.1		LP X2
39	LP	00	467.5		LP X2
46	LP	00	586.7		LP X2
51	LP	00	700.3		LP X3 WEAK POOLS
53	LP	00	723.8		3 WEAK LP'S
55	LP	00	751.8		LP X2
59	LP	00	801.3		BANK EROSION
64	RI	00	876.7		ROUGH-SKINNED NEWT
68	RI	00	989		1.2M UNDERCUT BANK, LOTS OF BLOWDOWN
78	RI	00	1097.1	BC, CS/CS	
79	SD	00	1099.6	BD	
80	BP	00	1154.6	/SS X2, BV	POOL IS ABOUT 5M UPSTREAM OF BC
81	SD	00	1155.6	BV,BD	
82	BP	01	1217.6	BV, AM	ROUGH-SKINNED NEWT
83	BP	11	1217.6	AM,BV	ROUGH-SKINNED NEWT, TRIB COMES INTO ANOTHER BP
84	SD	00	1218.6	BV,BD	
85	BP	00	1230.6	BV, /SS	
87	SD	00	1249.4	BV,BD	

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MONITORING AREA: 1-NC SITE ID: 330 STREAM: GODS VALLEY CREEK #4 (TRIB A)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
88	BP	00	1273.4	BV	COMPLEX CHANNELS
89	SD	00	1274	BV,BD	
90	BP	00	1287	BV	
91	SD	00	1288	BV,BD	
92	BP	00	1318	BV	

