

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

STREAM: Gods Valley Creek 4 (Trib A) (N-330)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: March 14, 2006
SURVEY CREW: Brian Cannon, Jon Nott
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 1.6 km³
USGS MAPS: Hamlet
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Gods Valley Creek habitat survey extended 1,437 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 7.9 (range: 4.5-12.0). Land use for the reach was young (3-15 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.3 percent. Riffles (65%) and scour pools (30%) dominated stream habitat. Gravel (47%) and sand (43%) dominated stream substrate. Wood volume was moderate at 22.1 m³/100m.

COMMENTS:

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

OREGON DEPT OF FISH AND WILDLIFE GODS VALLEY CREEK 4 (TRIB A) PRE-TX (1-NC, 330)

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date: 3/14/2006

REACH 1

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	7.9	VWI Range:	4.5 - 12

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	1,437	4,440	0
Secondary Channel	15	39	0
Off-Channel Units	19	27	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 1
Width: 3.1	Width: 4.7	23.3 (8 - 50)	9.0 (9 - 9)
Depth: 0.46	Height: 0.6	1.1 (0.9 - 1.3)	1.2 (1.2 - 1.2)

W:D ratio: 8.8 Entrenchment (ACW:FPW ratio): 4.9
 Stream Flow Type: MF Habitat Units/100m (total channel length): 6.4
 Average Unit Gradient: 1.3% Habitat Units/100m (primary channel length): 6.5
 Water temperature (°C): 8.0 - 8.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	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):	279	19.4
Volume (m ³):	318	22.1
Key pieces (>=12m x 0.60m):	13	0.9

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REACH 1		T04N-R09W-S36NW					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
POOL-BACKWATER	1	4	3.3	0.40	13	0	75	25	0	0	0	0
POOL-ISOLATED	1	4	2.5	0.20	9	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	41	399	3.2	0.73	1,253	0	7	55	35	0	0	3
POOL-PLUNGE	4	28	3.1	0.93	89	0	5	59	35	0	0	1
RAPID/BOULDERS	3	63	2.1	0.15	162	0	3	33	43	15	2	3
RIFFLE	25	634	3.0	0.20	1,875	0	7	30	61	0	0	2
RIFFLE W/ POCKETS	9	328	3.2	0.25	1,066	0	5	35	57	0	0	3
STEP/COBBLE	2	8	3.8	0.13	30	0	0	20	80	0	0	0
STEP/LOG	8	3	2.8	0.16	8	0	3	36	61	0	0	0
Total:	94	1,471	3.1	0.46	4,506	0	Avg: 8	43	47	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	2	8	2.9	0.30	22	0.49%	0	0.0	
Scour Pools	45	427	3.2	0.75	1,343	29.80%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	34	962	3.1	0.21	2,941	65.27%	0	0.0	
Rapids	3	63	2.1	0.15	162	3.59%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	10	11	3.0	0.16	38	0.85%	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:	47	31.9	32.7
Pools >=1m deep:	2	1.4	1.4
Complex pools (LWD pieces>=3):	18	12.2	12.5
Pool frequency (channel widths/pool):	6.7		
Residual pool depth (avg):	0.58		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 1-NC SITE ID: 330 GODS VALLEY CREEK 4 TRIB A PRE

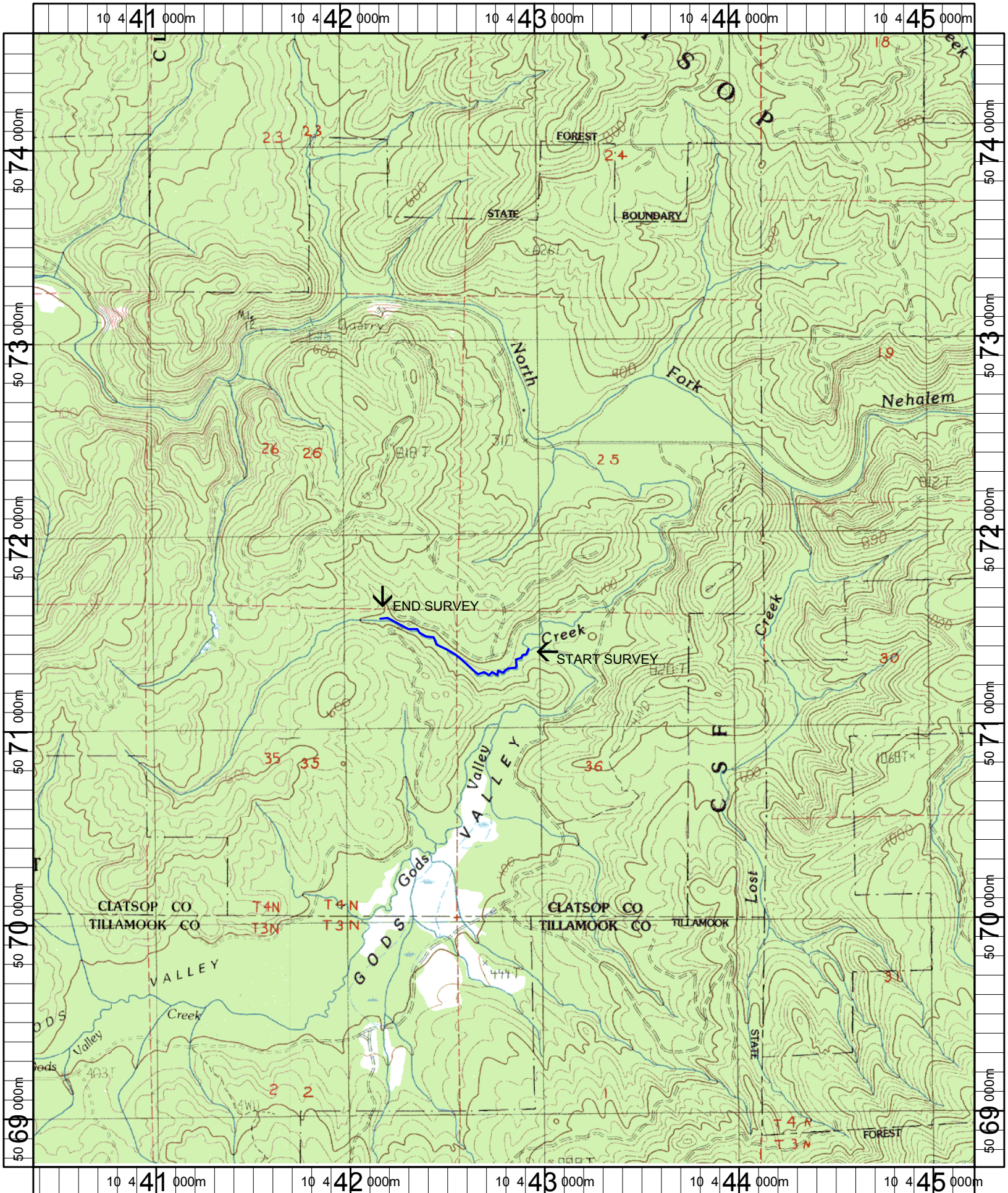
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	8.6		T = 8.0	
2	SL	00	9.2		H = 0.3	
4	PP	00	30		BEDROCK = HARDPAN	
5	SL	00	30.4		H = 0.3	
7	LP	00	69.1	BV		
8	RI	01	82.3		GRAVEL IS SOFT LIKE HARD CLAY	
11	BW	10	102.3		COFO FRY SEEN THROUGHOUT SURVY	
17	RI	00	198	SS/		
22	RI	00	295.8	/SS		
26	SC	00	355.1	SS/		
31	RI	00	445.3	/SS		
42	RI	00	722.6	SS/SS		
45	SL	00	741.7		H = 0.2	
48	RP	00	790.8	SS/		
58	LP	00	953.7	/SS		
61	RI	00	1012.2	SS/SS, BV	BV DEN	
63	RI	00	1030.3	/SS		
64	LP	00	1037.5	/SS		
67	SL	00	1070.9		H = 0.3	
70	RI	00	1120.7	/SS		
73	SL	00	1137.2		H = 0.3	

Comment Summary

Restoration Monitoring Sites 2006

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
75	SL	00	1143.9		H = 0.2	
77	LP	00	1165.4	SS/		
78	RB	00	1194.4	BC, CS/CS	RIPRAP BANKS AT BC	
79	LP	00	1206.5	/SS		
80	RP	00	1219.5	/SS		
81	SL	00	1219.9		H = 0.3	
84	RP	01	1274.6	SS/TJ		
85	RB	11	1274.6		T = 8.0	
87	RP	00	1334.8	BV	BV DEN	
88	LP	00	1343.7	/SS	OLD BV DAM, PARTLY BLOWN OUT	
92	SL	00	1393.4	BV	H = 0.5, STEP OVER OLD BV DAM	



Name: HAMLET
 Date: 1/19/2006
 Scale: 1 inch equals 2000 feet

Location: 10 442816 E 5071658 N
 Caption: GODS VALLEY TRIBUTARY A RESTORATION SITE - NEHALEM BASIN