

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

STREAM: Gods Valley Creek #4 (NC-330)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: February 14, 2007
SURVEY CREW: Jeff O'Leary, Sheri Etchemendy
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 1.6 km²
USGS MAPS: Hamlet
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Gods Valley Creek #4 habitat survey extended 1,424 meters. The channel was alternately constrained by hillslope and multiple terraces in a broad valley floor. The average valley width index was 10.9 (range: 3.5-20). Land use for the reach was second growth timber (15-30 cm dbh) and timber harvest. The average unit gradient was 1.4 percent. Scour pools (61%) and riffles (34%) dominated stream habitat. Gravel (46%), sand (27%) and silt/organics (22%) dominated stream substrate. Wood volume was low at 12.1 m³/100m.

COMMENTS:

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

The crew noted several future habitat structure sites during the survey.

Minimal beaver activity was noted in the survey.

REACH 1

T04N-R09W-S36SE

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	10.9	VWI Range:	3.5 - 20

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	1,424	3,675	0
Secondary Channel	14	20	1
Off-Channel Units	3	3	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 7
Width: 2.5	Width: 4.3	6.1 (3.45 - 10)	7.4 (3.6 - 12.5)
Depth: 0.40	Height: 0.4	0.9 (0.7 - 0.9)	1.0 (0.75 - 1.3)

W:D ratio: 10.3

Entrenchment (ACW:FPW ratio): 1.4

Stream Flow Type: MF

Habitat Units/100m (total channel length): 9.0

Average Unit Gradient: 1.4%

Habitat Units/100m (primary channel length): 9.1

Water temperature (°C): 7.0 - 7.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
Riparian Vegetation:	D30	C30

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):	166	11.7
Volume (m ³):	172	12.1
Key pieces (>=12m x 0.60m):	4	0.3

OREGON DEPT OF FISH AND WILDLIFE

GODS VALLEY CREEK #4 PRE-TX (1-NC, 330)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

2/14/2007

REACH 1		T04N-R09W-S36SE					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
GLIDE	2	28	2.3	0.20	61	0	10	20	68	3	0	0
POOL-BACKWATER	1	3	1.0	0.20	3	0	50	40	10	0	0	0
POOL-LATERAL SCOUR	68	798	2.8	0.62	2,207	0	30	32	35	3	0	2
POOL-PLUNGE	2	14	4.3	0.90	59	0	28	38	30	5	0	0
PUDDLED UNIT	1	14	1.5	0.20	20	0	50	45	5	0	0	0
RAPID/BOULDERS	1	7	2.3	0.10	16	0	5	15	75	5	0	0
RIFFLE	35	385	2.1	0.13	837	0	11	21	62	4	0	1
RIFFLE W/ POCKETS	8	163	2.7	0.20	419	0	15	24	50	11	0	1
STEP/COBBLE	9	29	2.4	0.09	73	0	8	16	71	6	0	0
STEP/LOG	3	1	2.4	0.07	3	0	20	33	47	0	0	0
Total:	130	1,440	2.5	0.40	3,698	0	Avg: 22	27	46	4	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	1	3	1.0	0.20	3	0.07%	0	0.0	
Scour Pools	70	811	2.8	0.63	2,266	61.28%	0	0.0	
Glides	2	28	2.3	0.20	61	1.65%	0	0.0	
Riffles	43	548	2.2	0.14	1,257	33.98%	0	0.0	
Rapids	1	7	2.3	0.10	16	0.44%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	12	31	2.4	0.09	75	2.04%	0	0.0	
Dry	1	14	1.5	0.20	20	0.55%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

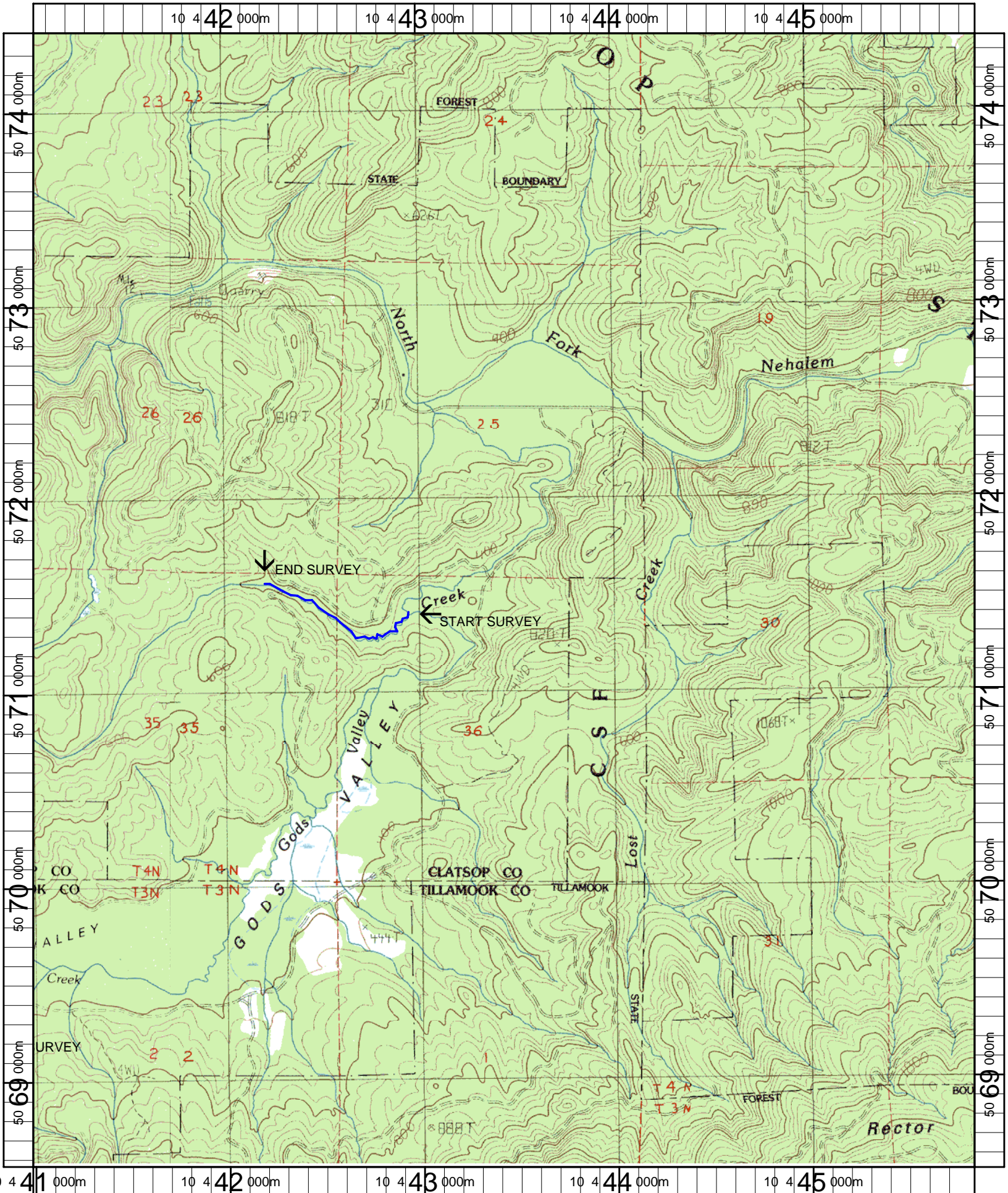
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	71	49.3	49.9
Pools >=1m deep:	2	1.4	1.4
Complex pools (LWD pieces>=3):	17	11.8	11.9
Pool frequency (channel widths/pool):	4.7		
Residual pool depth (avg):	0.53		

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 1-NC SITE ID: 330 GODS VALLEY CREEK #4 PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
13	LP	00	165.5	BV	
17	LP	00	227		BEDROCK IS HARDPAN
25	LP	00	319.6		WHITE FLAGGING, SITE #3
39	RI	00	426.6		WHITE FLAG, SITE 6, 7 KEY PIEC
46	RI	00	489.9		SITE 9, 8 KEY PIECES
56	LP	00	602.4		SITE 12, 8 KEY PIECES
79	LP	00	848.1		WHITE FLAG
91	LP	00	980.8		SITE 23, FLAG, 7 KEY PIECES
106	LP	00	1113.1	/SS	
109	RI	00	1162.3	BC	
112	LP	00	1195.7	/SS	
119	LP	01	1237.8	/TJ	
120	RI	00	1245.8		ACW=1.0, T=7
124	LP	00	1325.9	SS/	
132	LP	00	1423.9		END AT SIGN ON LEFT ALDER



Name: HAMLET
 Date: 5/9/2007
 Scale: 1 inch equals 2000 feet

Location: 10 443432 E 5071470 N
 Caption: GODS VALLEY TRIBUTARY A RESTORATION SITE - NEHALEM BASIN