

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

STREAM: GODS VALLEY CREEK #4 (TRIB A)
 GCG: 1-NC
 SITE ID: 330
 BASIN: NEHALEM
 TREATMENT DATE: 2007
 SURVEY DATE: 4/2/2009
 SURVEY CREW: Ryan Jacobsen / Miles Johnson
 USGS MAPS: HAMLET
 ECOREGION: Coastal Uplands
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T04S-R09W-S36NW

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): Second growth timber (15-30 cm dbh)
 Dominant riparian vegetation: Mixed conifer/deciduous: size class 30-50cm dbh
 Primary channel length (meters) and area (m²): 1,513 : 6,503
 Secondary channel length (meters) and area (m²) 90 : 266
 VWI average: 15.5 VWI Range: 1.5 - 20 Average Gradient: 0.8%
 Pieces LWD per 100m: 24.8 Wood Volume (m³) per 100m: 41.2
 Percent pools: 75% Complex pools (LWD pieces>=3): 41 Pools >=1m deep: 3
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	33	21	44	1	0	1
Pool units	33	21	45	1	0	0
Fast water units	20	18	56	1	0	5

SURVEY COMMENTS:

The Gods Valley Creek Tributary A survey is a post-treatment, restoration site. Recent beaver activity consisting of chewed sticks and dams were noted throughout the survey. Juvenile coho salmon were noted near the start of the survey. Evidence of amphibians included rough skinned newts and red legged frogs. There were no potential barriers to upstream fish migration observed within the survey reach.

Survey Date: 4/2/2009

Report Date: 2/16/2010

T04S-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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	15.5	VWI Range:	1.5 - 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	1,513	6,503	0
Secondary	90	266	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 6
Width: 4.0	Width: 5.6	7.4 (5.1 - 17.3)	10.6 (7 - 18)
Depth: 0.60	Height: 0.5	1.0 (0.9 - 1.2)	1.3 (1.1 - 1.4)

W:D ratio: 11.5

Stream Flow Type: MF

Average Unit Gradient: 0.8%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.4

Habitat Units/100m (total channel length): 7.4

Habitat Units/100m (primary channel length): 7.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	M30	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):	375	24.8
Volume (m ³):	624	41.2
Key pieces (>=12m x 0.60m):	13	0.9

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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
CASCADE/BEDROCK	1	12	0.7	0.15	8	0	20	20	0	0	0	60
POOL-BACKWATER	2	11	2.9	0.68	33	0	40	15	45	0	0	0
POOL-BEAVER DAM	3	95	9.3	1.27	965	0	83	15	2	0	0	0
POOL-DAMMED	4	61	6.7	0.85	499	0	65	23	13	0	0	0
POOL-ISOLATED	5	45	3.6	0.37	160	0	72	27	1	0	0	0
POOL-LATERAL SCOUR	63	898	3.9	0.76	3,527	0	28	21	49	1	0	0
POOL-PLUNGE	3	27	3.2	0.70	85	0	37	27	37	0	0	0
RAPID/BEDROCK	1	8	0.7	0.15	6	0	20	10	0	0	0	70
RIFFLE	26	428	3.3	0.31	1,386	0	20	19	60	1	0	0
STEP/BEAVER DAM	5	6	5.5	0.13	40	0	68	19	13	0	0	0
STEP/COBBLE	2	10	5.2	0.25	55	0	20	20	60	0	0	0
STEP/LOG	3	2	2.2	0.18	5	0	37	27	37	0	0	0
Total:	118	1,603	4.0	0.60	6,769	0	Avg: 33	21	44	1	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	14	212	5.6	0.74	1,657	24.48%	0	0.0
Scour Pools	66	925	3.9	0.76	3,611	53.35%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	26	428	3.3	0.31	1,386	20.48%	0	0.0
Rapids	1	8	0.7	0.15	6	0.08%	0	0.0
Cascades	1	12	0.7	0.15	8	0.12%	0	0.0
Step/Falls	10	18	4.4	0.17	100	1.48%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	80	49.9	52.9
Pools >=1m deep:	13	8.1	8.6
Complex pools (LWD pieces>=3):	41	25.6	27.1
Pool frequency (channel widths/pool):	3.6		
Residual pool depth (avg):	0.46		

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 4/2/2009

COMMENT SUMMARY

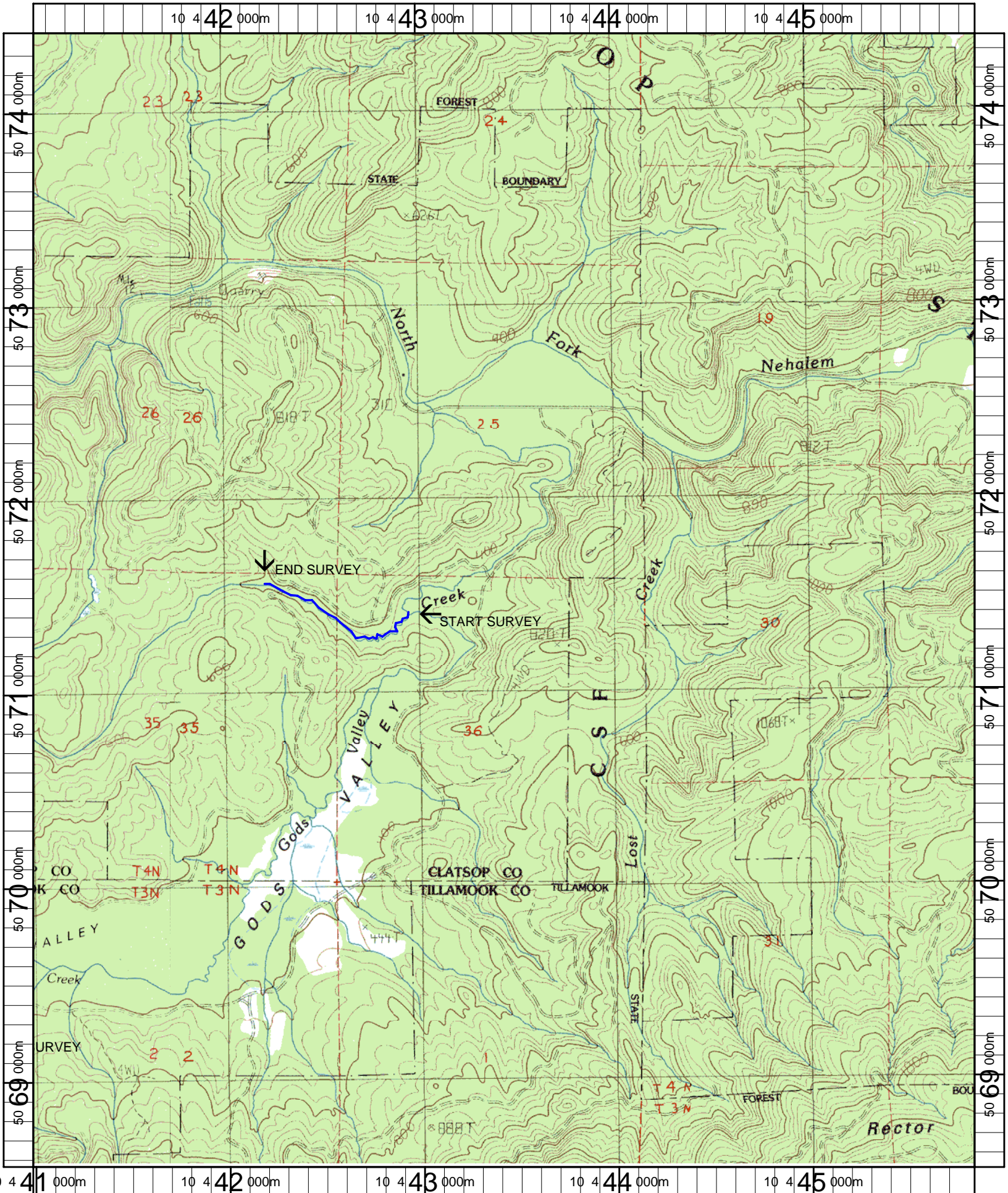
MONITORING AREA: 1-NC SITE ID: 330 STREAM: GODS VALLEY CREEK #4 (TRIB A)

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	RI	00	13		CT\CT D30\S ST\YT, T=7.5C
1	14	RI	00	198.7	SS\	
1	18	LP	00	260.8		COHO FRY
1	19	LP	00	275.8		CT\CT D30\S ST\YT
1	24	LP	00	353.3	BV	NEW BV STICKS
1	31	BW	10	456.8	\SS	
1	37	LP	00	531.7	BV,SS\	NEW BV STICK
1	39	LP	00	553.7		CT\CT D30\S ST\YT
1	56	RI	00	802.7		CA\CT D30\S ST\YT
1	62	SD	00	876.4	BV	
1	72	LP	01	988.6	\SS	
1	77	LP	00	1061.6		CA\CT M30\S ST\YT
1	80	SD	00	1062.8	BV	NEW DAM
1	81	BP	00	1104.8	BV	RED-LEGGED FROG
1	90	RI	00	1199.8	\SS	
1	92	RI	01	1225.8	BC,CS\CS	
1	93	IP	10	1225.8	AM	ROUGH-SKINNED NEWTS
1	94	SD	00	1226.3	BV	
1	95	DP	01	1252.3	\TJ	
1	96	CR	11	1252.3		ACW=1.1M, T=8C
1	97	LP	00	1269.3		CA\CT D30\S Y\T\ST
1	99	LP	01	1298.3	SS\TJ	
1	100	RR	00	1306.3		ACW=1M, T=8C
1	101	RI	00	1341.3	SS\	
1	107	LP	00	1397.7	\SS	

COMMENT SUMMARY

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

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	113	SD	01	1457.5	BV	
1	114	BP	01	1475.5	BV	
1	117	SD	00	1477.5	BV	
1	118	BP	00	1512.5	BV	CHMV D30\S Y1\ST



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

Gods Valley Creek #4 (Trib A) (NC-330) 2009 Winter Habitat Survey Photographs



Unit 1 - Large wood placement near the start of the survey.



Unit 20 - Downstream view of large wood placement a debris accumulation



Unit 20 - Large wood placement within active channel and terrace.



Unit 74 - Downstream of large wood placement.



Unit 75 - Upstream view of large wood placement.

Gods Valley Creek #4 (Trib A) (NC-330) 2009 Winter Habitat Survey Photographs



Unit 118 - Downstream view of beaver dam and pool.



Unit 118 - Upstream view of beaver pool near the end of the survey.