

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

STREAM: Gods Valley Creek #1 (N-207)
BASIN: Nehalem River
SURVEY TYPE: Post-Tx
DATE: March 18, 2004
SURVEY CREW: Michael Scheu, Carmen Vandyke
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 21.5 km²
USGS MAPS: Soapstone Lake
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Gods Valley Creek habitat survey extended 494 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 20.0. Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.1 percent. Scour pools (78%) and riffles (21%) dominated stream habitat. Gravel (46%) and sand (35%) dominated stream substrate. Wood volume was high at 31.2 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

REACH 1 T03N-R09W-S03NE 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	20.0	VWI Range:	20 - 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	494	2,686	0
Secondary	108	257	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.6	Width: 7.6	11.2 (7.9 - 15.8)	13.9 (10 - 18)
Depth: 0.79	Height: 0.6	1.2 (1 - 1.4)	1.5 (1.3 - 1.9)

W:D ratio: 12.7 Entrenchment (ACW:FPW ratio): 1.5
Stream Flow Type: MF Water temp (°C): 8.5 - 8.5
Avg. Unit Gradient: 0.1% Habitat Units/100m: 4.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	C30	D3

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</u>
All pieces (>=3m x 0.15m):	151	30.6
Volume (m ³):	154	31.2
Key pieces (>=10m x 0.60m):	9	1.8

REACH 1		T03N-R09W-S03NE					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-LATERAL SCOUR	18	411	5.2	1.09	2,297	0	22	38	40	0	0	0	
RIFFLE	9	184	3.9	0.32	631	0	16	31	53	0	0	0	
STEP/COBBLE	2	7	2.7	0.13	14	0	6	19	76	0	0	0	
Total:	29	602	4.6	0.79	2,943	0	Avg: 19	35	46	0	0	0	

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	0	0			0	0.00%	0	0.0	
Scour Pools	18	411	5.2	1.09	2,297	78.06%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	9	184	3.9	0.32	631	21.45%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	7	2.7	0.13	14	0.48%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	<u># / Km</u>	
All Pools:	18	29.9	108
Pools >=1m deep:	12	20.0	
Complex pools (LWD pieces>=3):	12	20.0	
Pool frequency (channel widths/pool):	4.4		
Residual pool depth (avg):	0.75		

STREAM SUMMARY

GODS VALLEY CREEK #1 POST-TX (N-207)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
29	602	4.6	0.79	2,943	19	35	46	0	0	0	

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	2,297	78.06%
Glides	0	0.00%
Riffles	631	21.45%
Rapids	0	0.00%
Cascades	0	0.00%
Step/Falls	14	0.48%
Dry	0	0.00%
Culverts	0	0.00%

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 207 GODS VALLEY CREEK #1 POST-TX (

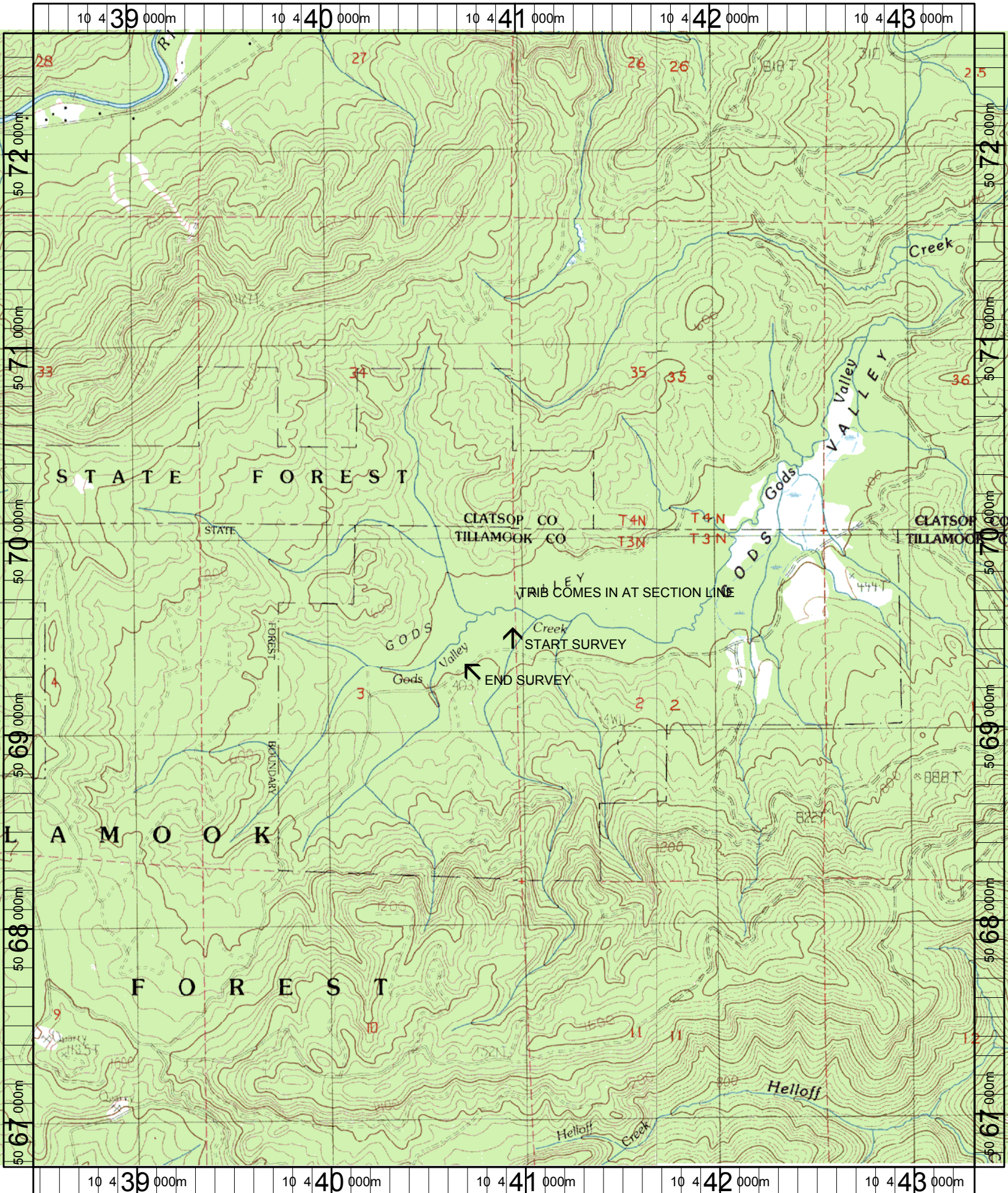
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	LP	00	41		COHO FRY	
2	LP	00	67	BV, WL	ELK TRACKS	
3	LP	00	92.8	BV	T=8.5C, COHO FRY	
4	LP	00	129.6	BV,WL,/SS	ELK XING, COHO	
5	LP	00	149.8	BV	COHO FRY, ORANGE FLA	
6	LP	00	171.5	HS	SG=4M, 3 LOGS	
7	LP	00	185.2		COHO FRY	
8	RI	00	205.3	HS,DJ	SG=6M	
9	LP	01	232.6	HS,DJ	PINK FLAG, 3-5 LOGS	
10	RI	11	232.6		SG=4M, FRY	
12	RI	11	232.6		ORANGE FLAG, COHO	
13	SC	00	237.6		SG=4M	
14	LP	00	262.1	/SS,BV	SG=8M, COHO FRY	
15	LP	00	281		AQUINV BLUE/WH FLAG-	
17	LP	00	291.1		SG=4M	
18	RI	00	304.1	HS	MANY LOGS	
21	LP	00	364.2	HS-2	COHO, 9+ LOGS	
22	RI	01	385.2	HS,TJ/	SG=8M, 3 LOGS	
23	RI	11	385.2		T=7.5C, COHO FRY, ACW	
24	LP	00	410.2	HS	4 LOGS	
25	RI	00	424.8	HS, DJ	JUMBLE OF LOGS	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 207 GODS VALLEY CREEK #1 POST-TX (

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
26	LP	00	454.5	BV		
27	RI	00	462.5	HS		
28	LP	00	484.5	BV		



Name: SOAPSTONE LAKE
 Date: 7/22/2004
 Scale: 1 inch equals 2000 feet

Location: 10 440911 E 5069678 N
 Caption: GODS VALLEY CREEK PHASE 1 RESTORATION SITE -
 NEHALEM BASIN