

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

STREAM: Gods Valley Creek Site 2 (NC-227)  
BASIN: Nehalem River  
SURVEY TYPE: Post-Tx  
DATE: February 14, 2005  
SURVEY CREW: Sheila Davis, Brian Bangs  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 21.5 km<sup>2</sup>  
USGS MAPS: Soapstone Lake  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Gods Valley Creek habitat survey extended 883 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 11.2 (range: 4.2-20.0). Land use for the reach was large (30-50 cm dbh) trees and timber harvest. The average unit gradient was 1.9 percent. Riffles (47%) and scour pools (41%) dominated stream habitat. Cobble (27%) and gravel (24%) dominated stream substrate. Wood volume was high at 32.3 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several habitat structures during the survey.

**OREGON DEPT OF FISH AND WILDLIFE    GODS VALLEY CREEK SITE 2 POST-TX    (1-NC, 227)**

**HABITAT INVENTORY**

Report Date: 11/29/2005

Survey Date: 2/14/2005

**REACH 1**

**T03N-R09W-S03NW**

**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	11.2	VWI Range:	4.2 - 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	883	3,479	0
Secondary Channel	15	42	0
Off-Channel Units	114	101	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.3	Width: 6.3	17.2 ( 10.7 - 25.4 )	24.1 ( 12.2 - 42.2 )
Depth: 0.35	Height: 0.5	1.0 ( 0.8 - 1.2 )	1.5 ( 1.2 - 1.8 )

W:D ratio: 12.6    Entrenchment (ACW:FPW ratio): 2.8  
 Stream Flow Type: LF    Habitat Units/100m (total channel length): 6.3  
 Average Unit Gradient: 1.9%    Habitat Units/100m (primary channel length): 7.2  
 Water temperature (°C): 4.0 - 4.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	TH
Riparian Vegetation:	D30	M15

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):	269	30.5
Volume (m <sup>3</sup> ):	285	32.3
Key pieces (>=12m x 0.60m):	19	2.2

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REACH 1		T03N-R09W-S03NW					REACH 1					
HABITAT DETAIL												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-BACKWATER	6	47	1.4	0.22	57	0	48	25	12	13	2	0
POOL-LATERAL SCOUR	20	322	4.1	0.70	1,467	0	19	26	27	21	6	1
PUDDLED UNIT	3	49	0.5	0.13	25	0	48	45	5	2	0	0
RAPID/BOULDERS	8	110	3.3	0.15	342	0	4	11	19	39	20	7
RIFFLE	24	480	3.4	0.22	1,709	0	6	12	28	37	10	7
STEP/BEDROCK	2	1	2.4	0.08	2	0	0	0	0	0	0	100
STEP/COBBLE	1	4	5.4	0.10	21	0	5	10	85	0	0	0
<b>Total:</b>	<b>64</b>	<b>1,013</b>	<b>3.3</b>	<b>0.35</b>	<b>3,623</b>	<b>0</b>	<b>Avg: 15</b>	<b>19</b>	<b>24</b>	<b>27</b>	<b>8</b>	<b>7</b>

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	6	47	1.4	0.22	57	1.58%	0	0.0	
Scour Pools	20	322	4.1	0.70	1,467	40.50%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	24	480	3.4	0.22	1,709	47.16%	0	0.0	
Rapids	8	110	3.3	0.15	342	9.43%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	5	3.4	0.08	23	0.63%	0	0.0	
Dry	3	49	0.5	0.13	25	0.69%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	26	25.7	29.4
Pools >=1m deep:	3	3.0	3.4
Complex pools (LWD pieces>=3):	14	13.8	15.9
Pool frequency (channel widths/pool):	6.2		
Residual pool depth (avg):	0.53		

# Comment Summary

## Restoration Monitoring Sites 2005

**MONITORING AREA: 1-NC      SITE ID: 227      GODS VALLEY CREEK SITE 2 POST-**

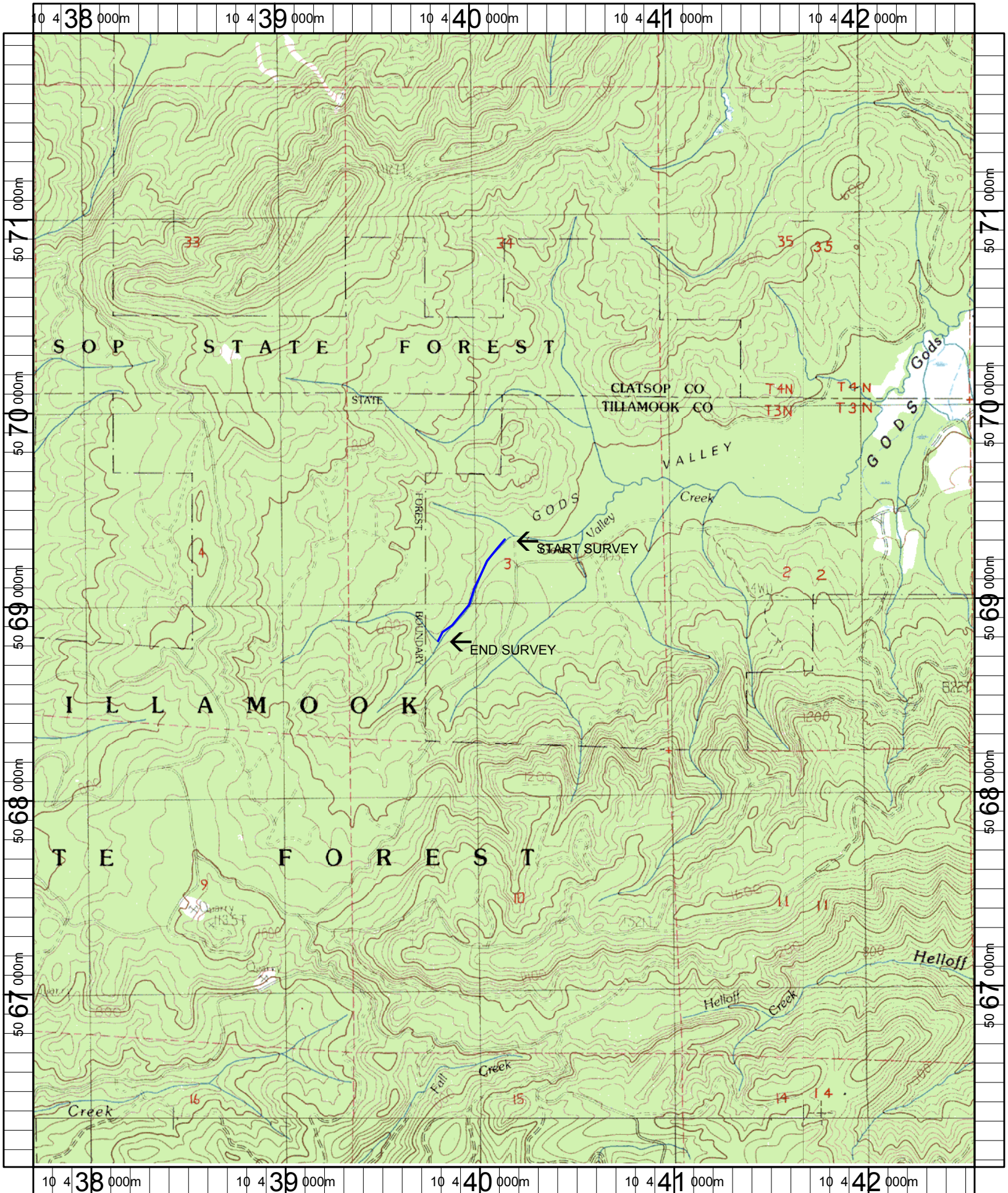
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	LP	00	47.8	SS/	CT,MT,D30,M50,LT,MT,	FRY
2	RI	01	65	BV,DJ	1ST LP BGNS BF BC AT STRT SIGN	
3	PD	11	65	WL	FRY	
4	LP	00	77.2	BV		
6	LP	01	100.4	HS		
7	RI	02	100.4	DJ		
12	LP	00	185.8	HS, DJ	FRY	
15	RI	00	238.4	HS		
16	RI	01	261.5	/TJ		
17	RB	11	261.5	DJ		
19	RI	01	300.8		CA, CT, M30, D15, LT, TH	
21	RI	00	316	DJ		
22	LP	00	325.9	DJ		
23	RI	00	346.6	HS		
24	LP	00	357.2	HS, DJ	FRY	
25	LP	01	393.8	BV		
26	BW	10	393.8		FRY	
27	RI	01	415.9	BV		
34	RI	00	507.9	DJ		
35	RB	00	520.1	BV		
36	LP	00	527.5	DJ		

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 227      GODS VALLEY CREEK SITE 2 POST-

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
37	RI	01	539.1	BV		
39	LP	00	563.1	HS	CA, CT, D50, D30, MT, TH	
43	LP	01	635.8	HS		
45	RI	01	661.4	SS/, HS		
55	RI	00	792.3		CA, MT,D30, M15, LT, TH	
61	SR	00	863.8		H=0.3	
64	SR	11	883.1		H=0.35, CA, MT,M30,M15, LT, ST	



Name: SOAPSTONE LAKE  
 Date: 6/9/2005  
 Scale: 1 inch equals 2000 feet

Location: 10 440151 E 5069013 N  
 Caption: GODS VALLEY CREEK #2 RESTORATION SITE - NEHALEM BASIN