

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

STREAM: Gods Valley Creek Tributary H (N-309)  
BASIN: Nehalem River  
SURVEY TYPE: Pre-Tx  
DATE: July 28, 2005  
SURVEY CREW: Dave Stewart, Ben Walczak  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 2.9 km<sup>2</sup>  
USGS MAPS: Soapstone Lake  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Gods Valley Creek Tributary H habitat survey extended 1,126 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.2 (range: 1.0-10.0). Land use for the reach was timber harvest and second growth (15-30 cm dbh) trees. The average unit gradient was 1.0 percent. Beaver pools (64%) dominated stream habitat. Gravel (46%), sand (27%) and silt (26%) comprised stream substrate. Wood volume was moderate at 26.7 m<sup>3</sup>/100m.

**COMMENTS:**

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

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	8.2	VWI Range:	1 - 10

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 Channel	1,126	5,882	0
Secondary Channel	54	73	0
Off-Channel Units	60	262	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.3	Width: 10.8	15.1 ( 6.7 - 42.3 )	17.1 ( 8.2 - 45.9 )
Depth: 0.41	Height: 0.4	0.8 ( 0.6 - 1 )	1.1 ( 0.7 - 1.2 )

W:D ratio: 31.0  
 Stream Flow Type: LF  
 Average Unit Gradient: 1.0%  
 Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.3  
 Habitat Units/100m (total channel length): 6.3  
 Habitat Units/100m (primary channel length): 6.9

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	ST
Riparian Vegetation:	M30	M50

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 66%
Undercut Banks:	28%	Range: 56 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	236	21.0
Volume (m <sup>3</sup> ):	301	26.7
Key pieces (>=12m x 0.60m):	12	1.1

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/28/2005

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 <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-BACKWATER	1	3	2.0	0.35	6	0	35	35	30	0	0	0
POOL-BEAVER DAM	12	575	6.4	1.03	3,942	0	40	39	21	0	0	0
POOL-LATERAL SCOUR	27	327	3.8	0.57	1,281	0	26	27	47	0	0	0
RAPID/BOULDERS	1	10	1.8	0.10	18	0	10	10	60	20	0	0
RIFFLE	16	291	2.8	0.14	806	0	16	17	65	3	0	0
STEP/BEAVER DAM	9	12	6.4	0.05	70	0	39	40	21	0	0	0
STEP/COBBLE	7	18	4.1	0.10	75	0	14	14	71	0	0	0
STEP/LOG	5	5	3.9	0.09	18	0	23	24	53	0	0	0
<b>Total:</b>	<b>78</b>	<b>1,240</b>	<b>4.3</b>	<b>0.41</b>	<b>6,216</b>	<b>0</b>	<b>Avg: 26</b>	<b>27</b>	<b>46</b>	<b>1</b>	<b>0</b>	<b>0</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	13	578	6.1	0.98	3,948	63.51%	0	0.0	
Scour Pools	27	327	3.8	0.57	1,281	20.61%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	16	291	2.8	0.14	806	12.97%	0	0.0	
Rapids	1	10	1.8	0.10	18	0.28%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	21	34	5.0	0.08	163	2.62%	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>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	40	32.3	35.5
Pools >=1m deep:	10	8.1	8.9
Complex pools (LWD pieces>=3):	19	15.3	16.9
Pool frequency (channel widths/pool):	2.9		
Residual pool depth (avg):	0.62		

Survey Date 7/28/2005  
Report Date: 4/26/2006

**RIPARIAN ZONE  
VEGETATION SUMMARY**

REACH 1

**Summary of Riparian Zone (0-30m) 3 transects**

Total hardwoods/1000	467
Total conifers/1000 ft	488
Total conifers >20" dbh/1000 ft	142
Total conifers >35" dbh/1000 ft	41

**Average number of trees in a 5-meter wide band**

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	1.0	0.7	1.3	2.0	0.7	1.0	3.0	3.7
15-30cm	0.0	0.3	0.3	0.0	0.0	0.7	0.3	1.0
30-50cm	0.0	0.7	0.7	0.3	1.7	0.0	2.3	1.0
50-90cm	0.0	0.7	0.7	0.3	1.0	1.0	1.7	2.0
>90cm	0.3	0.0	0.0	0.0	0.3	0.0	0.7	0.0
Total/100m2	1.3	2.3	3.0	2.7	3.7	2.7	2.7	2.6

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	45		51		60	
Shrub cover	49		53		43	
Grass/forb cover	43		38		38	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		0		0	
High terrace	100		100		100	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	0		0		0	

**Summary of Riparian Zone (0-30m) for all reaches**

**3 transects**

**Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream**

Total hardwoods/1000	467
Total conifers/1000 ft	488
Total conifers >20" dbh/1000 ft	142
Total conifers >35" dbh/1000 ft	41

**Average number of trees in a 5-m wide band**

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	3.0	3.7
15-30cm	0.3	1.0
30-50cm	2.3	1.0
50-90cm	1.7	2.0
>90cm	0.7	0.0



# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 309      GODS VALLEY TRIB H PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
7	SC	00	68.3	WL	H=0.1M	
11	SL	00	112.1		H=0.1M	
13	SC	00	140.3	WL	H=0.15M	ELK TRAILS
16	LP	00	172.1	WL		RACCOON TRACKS
17	SL	00	172.6		H=0.1M	
19	RI	00	213	WL		
21	SL	00	245.3		H=0.2M	
23	RI	00	265.2	WL	RIPARIAN 1	RIPARIAN 1
25	SC	00	277.2	WL	H=0.1M	
26	LP	01	287.2	TJ/		
28	SD	11	287.2	BD		
29	BP	11	287.2	BV		DEPTH ESTIMATED
31	SC	00	297.5		H=0.1M	
33	SL	00	306.8		H=0.3M	
39	RI	00	394.3	BV		BLOW DOWN
40	LP	00	400.3	WL		
41	SC	00	401.3		H=0.1M	
44	LP	00	423	WL		DEER
45	LP	00	442	DJ		
46	SC	00	443		H=0.1M	
48	SL	00	450.1		H=0.1M	

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 309      GODS VALLEY TRIB H PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
50	SD	00	461.9	BV, BD	H=0.6M	
51	BP	01	514.3	BV		
52	SC	01	516.3		H=0.1M	
53	BP	01	533	BV		
54	SD	01	534	BV, BD	H=0.6M	BD
55	BP	01	577.4	BV	RIPARIAN 2	RIPARIAN 2
56	RI	02	577.4	BV		
57	SD	02	577.4	BV, BD	H=0.4M	
58	BP	02	577.4	BV		
59	SD	00	578.4	BV, BD	H=0.4M	
60	BP	00	645.2	BV		
61	SD	00	646.2	BV, BD	H=0.6M	
62	BP	01	696.2	BV, TJ/		3D 0440566/5069997
63	BP	11	696.2	BV		
64	BP	00	767.8	BV		
65	SD	00	769.3	BV, BD	H=1.1M	
66	BP	00	829.3	BV	RIPARIAN 3	
67	SD	00	830.3	BV, BD	H=1.2	
68	BP	00	890.3	BV		LOTS OF COHO THROUGH T
69	SD	00	891.3	BV, BD	H=0.8M	
70	BP	00	959.1	BV		END OF BEAVER COMPLEX

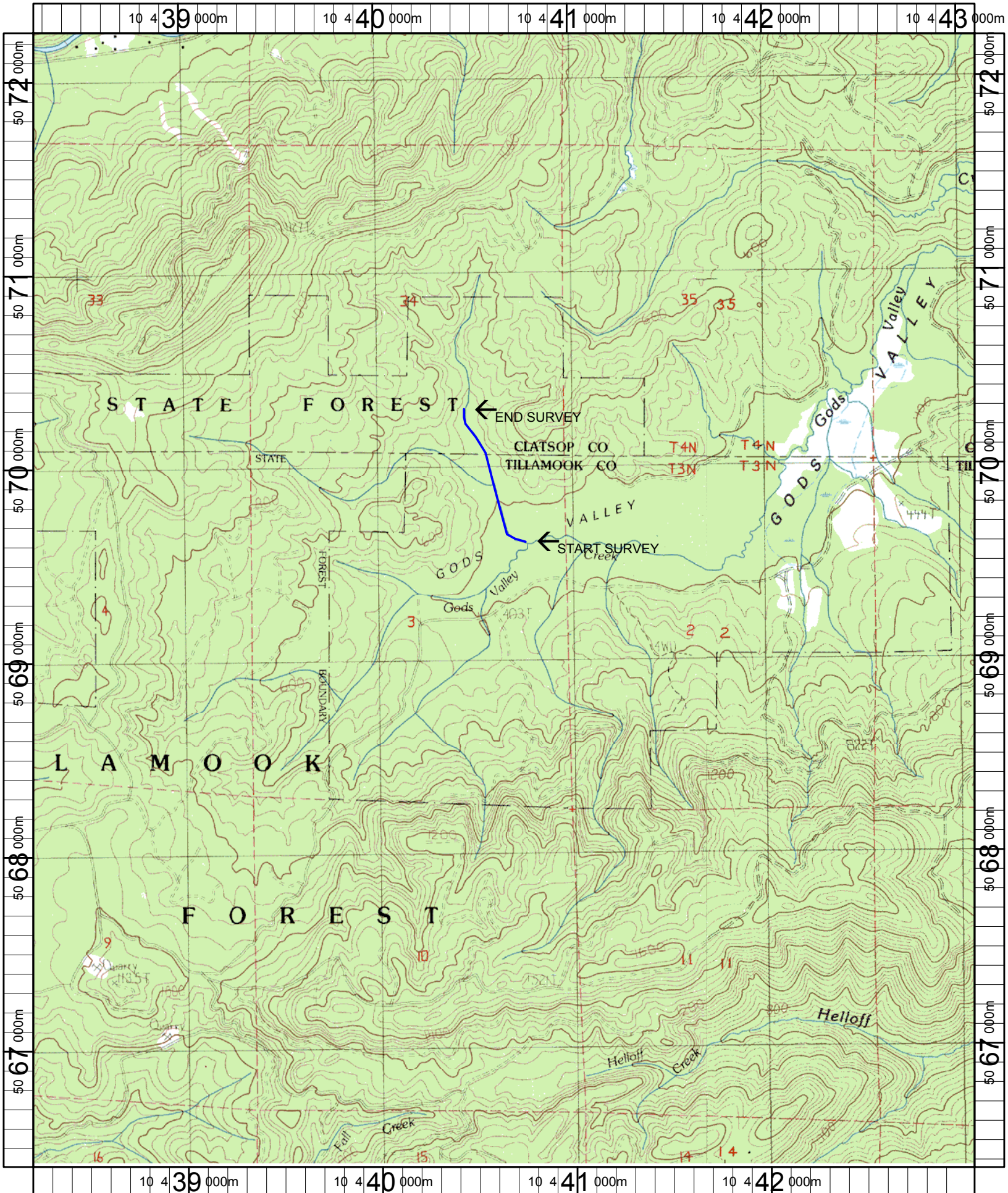


# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 309      GODS VALLEY TRIB H PRE-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>
78	RI	00	1126.1		END AT CONIFER LEFT	END SURVEY



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

Location: 10 440649 E 5069307 N  
 Caption: GODS VALLEY TRIBUTARY H RESTORATION SITE - NEHALEM BASIN