

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

STREAM: Gods Valley Creek #2 (N-227)  
BASIN: Nehalem River  
SURVEY TYPE: Post-Tx  
DATE: September 13, 2005  
SURVEY CREW: Scott Young, Ben Walczak  
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 808 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.8 (range: 3.0-10.0). Land use for the reach was timber harvest and second growth (15-30 cm dbh) trees. The average unit gradient was 1.9 percent. Riffles (48%) and scour pools (29%) dominated stream habitat. Cobble (31%), sand (28%) and gravel (26%) dominated stream substrate. Wood volume was low at 17.8 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.

REACH 1

T03N-R09W-S03SW

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	4.8	VWI Range:	3 - 10

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	808	2,938	0
Secondary Channel	44	72	2
Off-Channel Units	21	27	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.4	Width: 5.2	6.1 ( 4.9 - 7.5 )	6.9 ( 5.4 - 8.2 )
Depth: 0.26	Height: 0.2	0.5 ( 0.4 - 0.5 )	0.9 ( 0.6 - 1.2 )

W:D ratio: 22.9

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: LF

Habitat Units/100m (total channel length): 6.0

Average Unit Gradient: 1.9%

Habitat Units/100m (primary channel length): 6.4

Water temperature (°C): -

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	ST
Riparian Vegetation:	D15	

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	5%	Reach avg: 70%
Undercut Banks:	0%	Range: 42 - 89

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	166	20.5
Volume (m <sup>3</sup> ):	144	17.8
Key pieces (>=12m x 0.60m):	6	0.7

OREGON DEPT OF FISH AND WILDLIFE

GODS VALLEY CREEK #2 POST-TX (1-NC, 227)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

9/13/2005

REACH 1		T03N-R09W-S03SW					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
DRY CHANNEL	2	31	1.5	0.00	46	0	18	13	32	37	0	0
POOL-BACKWATER	2	6	2.9	0.20	17	0	8	31	22	39	0	0
POOL-ISOLATED	2	5	1.0	0.20	5	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	20	251	3.5	0.49	873	0	20	45	16	17	0	2
RAPID/BOULDERS	6	160	3.0	0.11	521	0	2	22	27	42	0	6
RIFFLE	14	399	3.6	0.12	1,471	0	3	19	38	39	0	0
STEP/COBBLE	6	22	4.8	0.10	104	0	0	13	35	52	0	0
<b>Total:</b>	52	873	3.4	0.26	3,037	0	<b>Avg:</b> 13	28	26	31	0	2

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	4	11	1.9	0.20	22	0.73%	0	0.0
Scour Pools	20	251	3.5	0.49	873	28.75%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	14	399	3.6	0.12	1,471	48.44%	0	0.0
Rapids	6	160	3.0	0.11	521	17.15%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	6	22	4.8	0.10	104	3.42%	0	0.0
Dry	2	31	1.5	0.00	46	1.51%	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:	24	27.5	29.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	10	11.5	12.4
Pool frequency (channel widths/pool):	7.0		
Residual pool depth (avg):	0.39		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

GODS VALLEY CREEK #2 POST-TX  
GCG: 1-NC SITE ID: 227

Survey Date 9/13/2005  
Report Date: 4/26/2006

**RIPARIAN ZONE  
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	284
Total conifers/1000 ft	122
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

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	0.3	0.3	0.0	0.3	0.0	0.0	0.3	0.7
15-30cm	0.3	1.3	0.3	0.7	0.0	0.7	0.7	2.7
30-50cm	0.0	0.3	0.0	0.3	1.0	0.7	1.0	1.3
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.7	2.0	0.3	1.3	1.0	1.3	0.7	1.6

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	68	71	69
Shrub cover	10	10	13
Grass/forb cover	90	90	87

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	50	67	83
High terrace	50	33	17
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 (%)	16	38	44

**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	284
Total conifers/1000 ft	122
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

**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	0.3	0.7
15-30cm	0.7	2.7
30-50cm	1.0	1.3
50-90cm	0.0	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

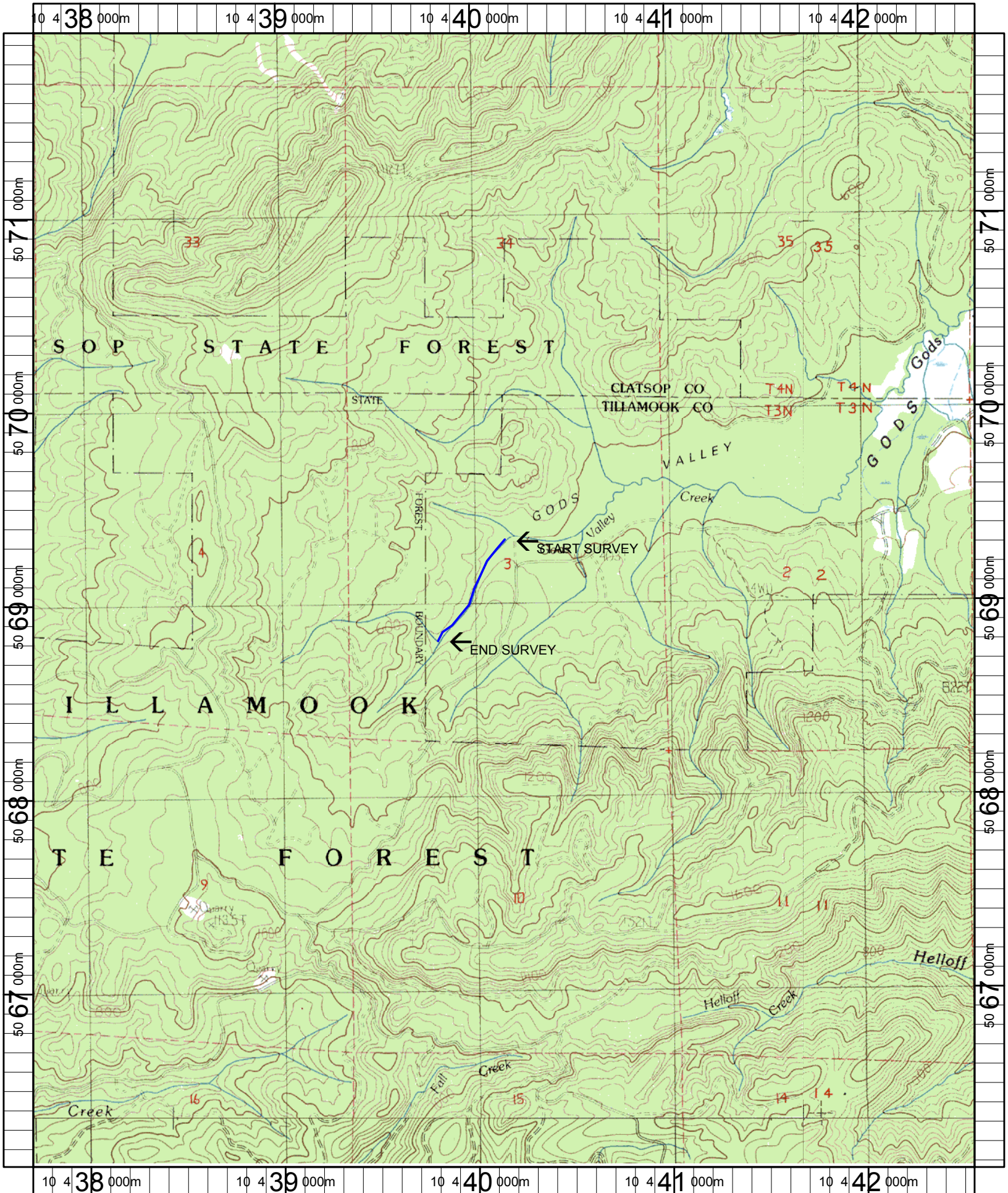
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
12	RT	1	HS	35	60	30	70	Conifer		1					
								Hardwood							
12	RT	2	HS	60	60	30	70	Conifer		1					
								Hardwood		1					
12	LF	2	HT	0	60	5	95	Conifer							
								Hardwood			1				
12	LF	1	HT	0	60	5	95	Conifer							2D
								Hardwood			1				0440056/50691
															99
12	RT	3	HS	70	60	50	50	Conifer				1			
								Hardwood							
12	LF	3	HT	0	60	5	95	Conifer							
								Hardwood		1	1				
30	RT	2	HT	0	70	10	90	Conifer							
								Hardwood							
30	RT	3	HS	20	75	10	90	Conifer				1			
								Hardwood		1	1				
30	RT	1	HT	0	65	10	90	Conifer							
								Hardwood							
30	LF	3	HS	80	80	5	95	Conifer				1			
								Hardwood							
30	LF	2	HS	80	75	5	95	Conifer							
								Hardwood	1						
30	LF	1	HS	45	65	5	95	Conifer							3D
								Hardwood	1	1					0439998/50690
															32
44	LF	2	HS	75	80	0	100	Conifer							
								Hardwood							
44	LF	3	HS	60	80	0	100	Conifer							
								Hardwood							
44	RT	1	HT	0	80	10	90	Conifer							
								Hardwood			2				
44	RT	2	HS	10	80	10	90	Conifer							
								Hardwood			1				
44	RT	3	HS	35	60	10	90	Conifer							
								Hardwood							
44	LF	1	HS	15	80	0	100	Conifer	1						POOR GPS
								Hardwood		1					COVERAGE

# Comment Summary

## Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
3	SC	00	21.7		H=0.3M	
5	SC	00	42.9		H=0.35M	
6	LP	01	56.6	HS		
10	RI	00	129.1	HS		
12	RI	01	199.5	HS /TJ	RIPARIAN 1	
15	RI	01	251.7	HS		
18	RI	00	287.2	HS		
20	SC	00	301.5		H=0.3M	
21	LP	00	313.9	HS		
22	RI	01	336.9	HS		
25	SC	00	348.4		H=0.15M	
30	RI	00	424.9		RIPARIAN 2	
35	LP	00	493.2	HS		
38	SC	00	526.7		H=0.25M	
40	SC	00	543.2		H=0.3M	
41	LP	00	563	HS		
42	RI	01	613	HS		
43	BW	10	613	HS		
44	RB	00	638.5	HS	RIPARIAN 3	RIP 3
52	RB	00	807.9		END AT 50/50 SPLIT	END SURVEY



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