

**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: Pre-Tx  
DATE: August 13, 2004  
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 833 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 6.5 (range: 5.0-8.0). Land use for the reach was timber harvest and young (3-15 cm dbh) trees. The average unit gradient was 2.6 percent. Scour pools (26%) and dry channel units (24%) dominated stream habitat. Cobble (31%), gravel (23%) and sand (23%) dominated stream substrate. Wood volume was low at 7.6 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted beaver activity 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	6.5	VWI Range:	5 - 8

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	833	3,063	7
Secondary	57	128	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 4.0	Width: 6.9	7.6 ( 7.1 - 8.1 )	9.1 ( 8.2 - 11.3 )
Depth: 0.28	Height: 0.4	0.9 ( 0.8 - 0.9 )	1.1 ( 1.1 - 1.2 )

W:D ratio: 15.8

Stream Flow Type: MF

Average Unit Gradient: 2.6%

Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.1

Habitat Units/100m (total channel length): 6.2

Habitat Units/100m (primary channel length): 6.6

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	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:	13%	Reach avg: 83%
Undercut Banks:	1%	Range: 64 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	112	13.5
Volume (m <sup>3</sup> ):	63	7.6
Key pieces (>=12m x 0.60m):	1	0.1

OREGON DEPARTMENT OF FISH AND WILDLIFE

GODS VALLEY CREEK #2 PRE-TX (N-227)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

8/13/2004

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
CASCADE/BOULDERS	1	9	2.0	0.15	18	0	40	50	10	0	0	0
POOL-BACKWATER	1	3	2.5	0.20	8	0	42	42	11	5	0	0
POOL-BEAVER DAM	2	95	4.4	0.60	451	0	44	35	20	0	0	0
POOL-LATERAL SCOUR	15	239	2.7	0.52	687	0	22	28	24	18	0	8
POOL-PLUNGE	4	27	5.9	0.39	134	0	24	34	18	9	0	15
PUDDLED UNIT	8	198	3.6	0.13	751	1	12	20	20	47	1	0
RAPID/BOULDERS	6	119	3.1	0.13	357	3	5	18	29	43	2	4
RIFFLE	9	178	3.5	0.17	637	0	10	20	29	38	0	2
STEP/BEAVER DAM	2	3	7.8	0.20	19	0	35	35	15	3	3	10
STEP/BEDROCK	1	2	8.5	0.10	17	0	0	0	0	0	0	100
STEP/COBBLE	6	16	6.9	0.09	111	0	1	3	25	71	0	0
<b>Total:</b>	<b>55</b>	<b>890</b>	<b>4.0</b>	<b>0.28</b>	<b>3,190</b>	<b>4</b>	<b>Avg: 16</b>	<b>23</b>	<b>23</b>	<b>31</b>	<b>0</b>	<b>6</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	3	98	3.8	0.47	459	14.38%	0	0.0
Scour Pools	19	266	3.3	0.49	821	25.73%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	9	178	3.5	0.17	637	19.96%	0	0.0
Rapids	6	119	3.1	0.13	357	11.19%	3	0.8
Cascades	1	9	2.0	0.15	18	0.56%	0	0.0
Step/Falls	9	21	7.2	0.11	147	4.61%	0	0.0
Dry	8	198	3.6	0.13	751	23.56%	1	0.1
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	22	24.7	26.4
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	8	9.0	9.6
Pool frequency (channel widths/pool):	5.9		
Residual pool depth (avg):	0.41		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1

REACH 1

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

3 transects

Total hardwoods/1000	386
Total conifers/1000 ft	325
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	0.0	1.0	0.0	0.7	0.0	0.0	0.0	1.7
15-30cm	0.0	0.7	0.3	0.0	0.7	0.0	1.0	0.7
30-50cm	0.7	1.7	1.3	1.0	2.3	1.0	4.3	3.7
50-90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.7	3.7	1.7	1.7	3.0	1.0	1.8	2.1

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	58		52		52	
Shrub cover	13		18		13	
Grass/forb cover	84		48		64	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		50		50	
High terrace	67		50		50	
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 (%)	33		35		40	

**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	
14	LF	2	HT		70	10	90	Conifer			1			
								Hardwood						
14	LF	3	HT		70	10	90	Conifer			1			
								Hardwood			1			
14	RT	1	HS	25	70	20	80	Conifer						
								Hardwood	1	1				
14	RT	2	HS	25	65	20	0	Conifer				1		
								Hardwood						
14	RT	3	HS	30	65	10	90	Conifer				2		
								Hardwood				2		
14	LF	1	HT		70	5	95	Conifer				1		10T 0440059
								Hardwood				2		5061169
29	LF	1	HT		80	5	85	Conifer						10T 0440445
								Hardwood		1		2		5069090
29	RT	3	HS	45	60	10	60	Conifer				2		
								Hardwood						
29	RT	2	HS	35	60	20	60	Conifer						
								Hardwood	2			1		
29	RT	1	HT		70	10	85	Conifer						
								Hardwood				1		
29	LF	2	HT		80	15	55	Conifer				2		
								Hardwood				1		
29	LF	3	HT		80	10	45	Conifer			1	1		
								Hardwood						
43	RT	2	HT		35	30	70	Conifer			1			
								Hardwood				1		
43	LF	1	HS	40	20	15	80	Conifer				1		10T 0439972
								Hardwood	1					5068301
43	LF	2	HS	45	0	15	15	Conifer						CLEARCUT
								Hardwood						
43	RT	1	HT		35	20	80	Conifer						
								Hardwood	1				1	
43	RT	3	HT		35	20	80	Conifer			1	1		
								Hardwood						
43	LF	3	HS	45	0	15	18	Conifer						CLEARCUT
								Hardwood						

# Comment Summary

## Oregon Plan Monitoring Sites 2002

**MONITORING AREA: 1-NC      SITE ID: 227      GODS VALLEY CREEK #2 PRE-TX (N**

<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	RB	00	15.4		START AT SALMON SPA	
2	PP	00	17.9		10T 0440189 5069326	
3	SC	00	20.65		H=.60M	
6	RB	02	59.85			02 UNIT
12	SR	00	140.35		H=.80M	HARDPAN CLAY
14	RI	00	196.25	/SS	RIP T 1 10T 0440059 5069	
15	LP	00	206.25		BEGIN TIMBER HARVEST	
18	RI	00	251	/S		
22	SC	00	304.15		H=.45M	
26	SC	00	338.55		H=0.35	
28	SC	00	361.35		H=0.45M	
29	LP	00	385.35		10T 0440045 5069090	
34	SD	01	473.3	BV, BD	H=1.20M	
35	RI	02	473.3	BV		02
36	PP	02	473.3	BV		02
37	CB	02	473.3	BV		02
38	PD	03	473.3	BV		03
39	BP	00	493	BV		
40	SD	00	494.25	BV, BD	H=.7M	
41	BP	00	569.75	BV		
43	PD	00	622.45		10T 0439972 5068301	

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 227 GODS VALLEY CREEK #2 PRE-TX (N

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
49	SC	00	732.55		H=.50	



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

Location: 10 440102 E 5068883 N  
 Caption: GODS VALLEY CREEK PHASE 2 RESTORATION SITE -  
 NEHALEM BASIN