

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: Post-Tx
DATE: September 17, 2006
SURVEY CREW: Gordon Rose, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 2.9 km²
USGS MAPS: Soapstone Lake
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Gods Valley Creek Tributary H habitat survey extended 1,216 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.0 (range: 5.0-10.0). Land use for the reach was large (30-50 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 0.9 percent. Beaver pools (56%) dominated stream habitat. Gravel (55%) and sand (25%) dominated stream substrate. Wood volume was high at 32.8 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

T04N-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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	8.0	VWI Range:	5 - 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	1,216	5,551	0
Secondary Channel	13	26	0
Off-Channel Units	30	56	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.4	Width: 6.1	8.0 (3.8 - 17.2)	9.4 (4.5 - 19.5)
Depth: 0.44	Height: 0.4	0.7 (0.4 - 0.9)	1.2 (0.7 - 1.8)

W:D ratio: 18.1

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: LF

Habitat Units/100m (total channel length): 3.7

Average Unit Gradient: 0.9%

Habitat Units/100m (primary channel length): 3.8

Water temperature (°C): -

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	YT
Riparian Vegetation:	C30	D30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	17%	Reach avg: 50%
Undercut Banks:	14%	Range: 22 - 89

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	273	22.4
Volume (m ³):	399	32.8
Key pieces (>=12m x 0.60m):	19	1.6

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

9/17/2006

REACH 1		T04N-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
GLIDE	1	13	2.0	0.20	26	0	30	30	40	0	0	0
POOL-BEAVER DAM	6	392	8.3	1.08	3,162	0	30	33	37	0	0	0
POOL-LATERAL SCOUR	15	364	3.1	0.73	1,126	0	12	24	62	0	0	2
POOL-PLUNGE	1	7	6.0	0.70	42	0	30	40	30	0	0	0
PUDDLED UNIT	1	8	1.5	0.01	12	0	40	40	20	0	0	0
RIFFLE	13	458	2.5	0.12	1,127	1	5	15	69	9	0	1
STEP/BEAVER DAM	8	15	7.4	0.02	126	0	28	35	38	0	0	0
STEP/LOG	1	3	4.0	0.10	12	0	5	10	85	0	0	0
Total:	46	1,259	4.4	0.44	5,633	1	Avg: 16	25	55	3	0	1

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	6	392	8.3	1.08	3,162	56.13%	0	0.0	
Scour Pools	16	371	3.3	0.73	1,168	20.74%	0	0.0	
Glides	1	13	2.0	0.20	26	0.46%	0	0.0	
Riffles	13	458	2.5	0.12	1,127	20.01%	1	0.1	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	9	18	7.1	0.03	138	2.45%	0	0.0	
Dry	1	8	1.5	0.01	12	0.21%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	22	17.5	18.1
Pools >=1m deep:	8	6.4	6.6
Complex pools (LWD pieces>=3):	18	14.3	14.8
Pool frequency (channel widths/pool):	9.3		
Residual pool depth (avg):	0.74		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

GODS VALLEY TRIB H POST-TX
GCG: 1-NC SITE ID: 309

Survey Date 9/17/2006
Report Date: 3/5/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	447
Total conifers/1000 ft	528
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	20

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	1.3	3.0	2.7	3.0	0.3	0.3	4.3	6.3
15-30cm	0.3	0.0	0.3	0.0	0.7	0.0	1.3	0.0
30-50cm	1.0	0.0	0.0	0.3	0.7	0.3	1.7	0.7
50-90cm	0.3	0.0	0.3	0.3	0.3	0.0	1.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
Total/100m2	3.0	3.0	3.3	3.7	2.3	0.7	2.9	2.4

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	36		37		38	
Shrub cover	27		54		63	
Grass/forb cover	68		38		25	

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		83		100	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		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	447
Total conifers/1000 ft	528
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	20

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	4.3	6.3
15-30cm	1.3	0.0
30-50cm	1.7	0.7
50-90cm	1.0	0.3
>90cm	0.3	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	
8	RT	3	HT	0	85	5	20	Conifer		2	1	1		
								Hardwood						
8	RT	2	RB	0	40	5	45	Conifer		1		1		
								Hardwood						
8	RT	1	HT	0	85	10	60	Conifer			1	2	1	NO AMPHIBIANS
								Hardwood	2					
8	LF	3	HT	0	50	95	5	Conifer						
								Hardwood			1			
8	LF	2	HT	0	85	30	70	Conifer						NO AMPHIBIANS
								Hardwood	6		1	1		
8	LF	1	HT	0	40	5	95	Conifer						POOR GPS COVERAGE
								Hardwood						
21	LF	3	HT	0	30	100	0	Conifer						
								Hardwood						
21	RT	3	HT	0	40	90	10	Conifer	1		1		1	
								Hardwood	1					
21	RT	1	HT	0	30	80	20	Conifer	2					
								Hardwood	2					
21	LF	2	HT	0	30	100	0	Conifer	1					
								Hardwood	1					
21	LF	1	HT	0	30	10	90	Conifer						UTM 0440628-5069898 (2D)
								Hardwood	3					
21	RT	2	HT	0	35	95	5	Conifer	4					
								Hardwood	1					
32	RT	2	HT	0	20	90	10	Conifer	1					
								Hardwood	1					
32	LF	1	HT	0	15	5	95	Conifer			1			UTM 0440568-5070032 (3D)
								Hardwood						
32	LF	2	HT	0	10	5	95	Conifer	2					
								Hardwood						
32	LF	3	HT	0	15	5	95	Conifer						
								Hardwood						
32	RT	1	HT	0	15	50	50	Conifer	2					
								Hardwood	2					
32	RT	3	HT	0	10	80	20	Conifer						CLEARCUT STARTS
								Hardwood						

Comment Summary

Restoration Monitoring Sites 2006

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

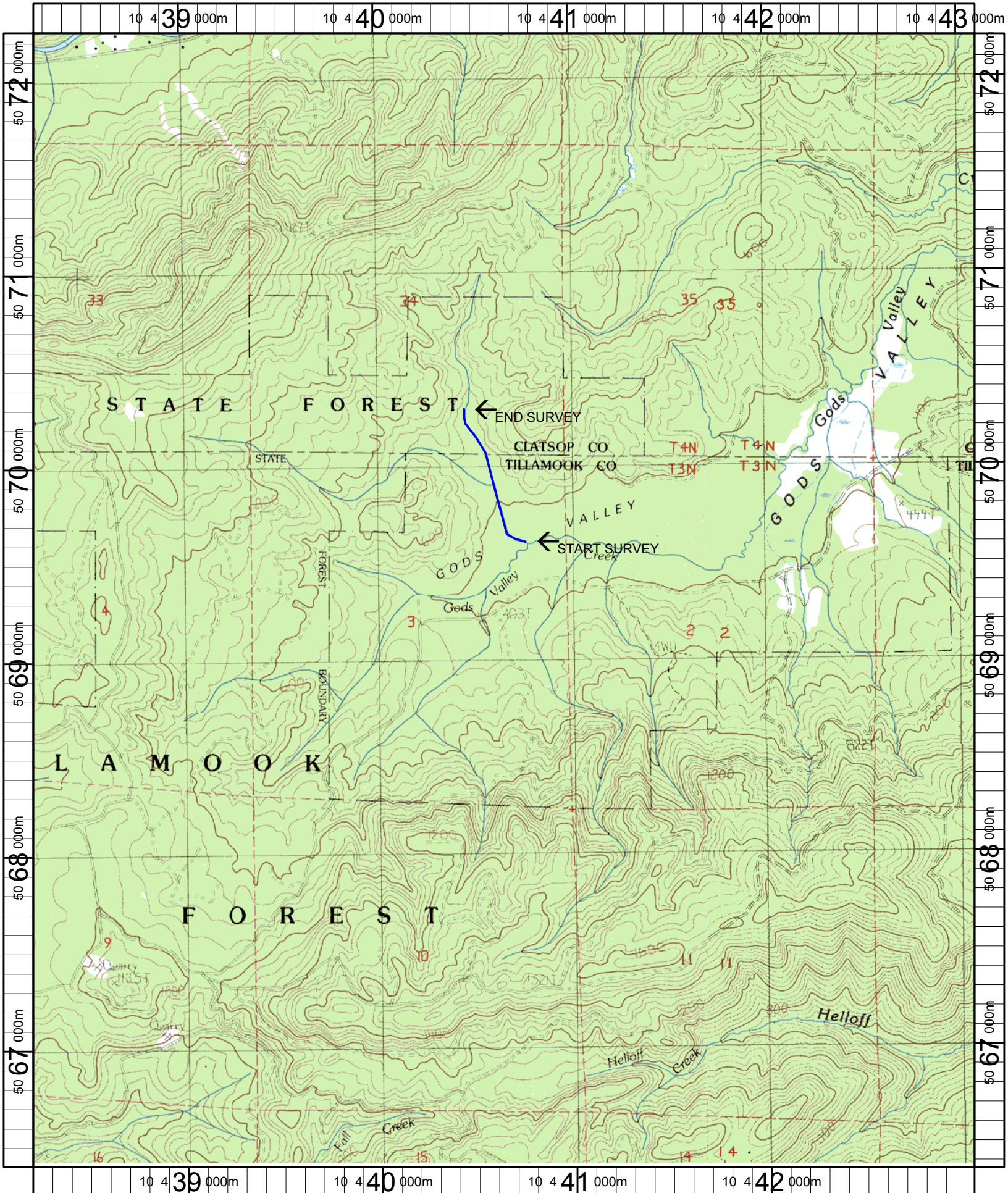
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	48	HS	START AT CONFLUENCE	
2	RI	00	98	HS, WL		RED-LEGGED FROG
3	LP	00	138	HS		
4	RI	00	164.5	HS		
5	LP	00	179			BEDROCK=HARDPAN
6	LP	00	194	HS		
7	RI	00	230	HS		
8	LP	00	265		RIPARIAN #1	BEDROCK=HARDPAN
9	LP	00	279	HS		T=14.0C AT 11:00, BDRK=
10	RI	00	289.5	WL		RED-LEGGED FROG
11	LP	00	298.5	HS		
12	SL	00	301.5	WL	H=0.20M	FROG -SPECIES UNKNOW
13	LP	01	326.5	TJ/		POOR GPS COVERAGE
14	SD	11	326.5	BD	H=0.60M	OLD BEAVER DAM
16	LP	00	371	HS, WL		RSN
17	LP	00	393	HS		
19	LP	00	416.5	WL		RED-LEGGED FROG
20	RI	00	457.5	HS		
21	LP	00	494.5		RIPARIAN #2	
22	SD	00	496.25	BD	H=0.70M	
23	BP	01	561.25	BV, WL		RSN

Comment Summary

Restoration Monitoring Sites 2006

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
24	SD	01	562.25	BD	H=0.70M	
25	BP	01	621.25	BV, HS, WL		FROG-SPECIES UNKNOW
27	SD	00	622.25	BD	H=0.30M	
31	SD	00	688.75	BD	H=0.60M	
32	BP	01	780.25	BV, TJ/	RIPARIAN #3, BV AFFECTED	
36	SD	00	842.75	BD	H=1.30M	
37	BP	00	903.75	BV		
38	SD	00	905.75	BD	H=1.70M	
39	BP	00	965.75	BV		
40	SD	00	969.75	BD	H=0.80M	
41	BP	00	1024.75	BV		
42	RI	00	1074.75	HS		
46	RI	00	1216.25		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