

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

STREAM: Honeygrove Creek (MC-35)  
 BASIN: Alsea River  
 SURVEY TYPE: Pre and Post-Tx  
 DATE: October 27, 2003  
 REPORT PREPARED BY: Paul Jacobsen

The Honeygrove Creek restoration project extended approximately 500 meters, with the entire project being monitored for pre- and post-treatment conditions. Three habitat structures were created and 10 key pieces (according to the ODF Large Wood Placement Guide) were used. The intended goals of the project included increasing stream complexity, improved interaction with the floodplain, gravel retention, increased pool area, and enhanced salmonids spawning and rearing habitat. In the first seasons after restoration activities, large wood pieces and key pieces are increased as expected. In addition, pool area and riffle gravel are both higher.

	ODFW	Benchmark	Winter Pre	Summer Pre	Winter Post	Summer Post	
Habitat Variable	Desirable	Undesirable	1/31/00	7/10/00	2/27/01	7/11/01	
Reach #							
Pool Area	>35	<10	69.7	67.6	58.5	83.1	
Pool Frequency	5-8	>20	2.7	2.8	4.7	3.9	
Residual Pool Depth	>0.5-1.0m	<0.2-0.5m	.68	.60	.75	.58	
Complex Pools/km	>2.5	<1.0	16.3	16.4	17.8	14.5	
Width/Depth Ratio	<15	>30	12.0	15.7	12.4	17.4	
Riffle Gravel % area	>35	<15	55	62	85	76	
Silt-Sand-Organic %	<12	>25	26	13	13	22	
Shade %	>70	< 60		67		94	
LWD - pieces/100m	>20	<10	17.7	21.3	22.5	22.1	
LWD - Volume/100m	>30	<20	25.8	11.1	30.9	19.8	
LWD - Key pieces/ 100m	>3	<1	0.9	0.5	1.9	1.0	
Riparian Conifers>20" dbh/1000ft	>300	<150		41		0	
Riparian Conifers>35" dbh/1000ft	>200	<75		0		0	

**COMMENTS:**

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

The crew noted evidence of beaver activity during the survey. Four habitat structures were also recorded.

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

STREAM: Honeygrove Creek (MC-35)  
BASIN: Alsea River  
SURVEY TYPE: Post-Tx  
DATE: July 11, 2001  
SURVEY CREW: LaNoah Babcock, Loren Stucker  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 16.2 km<sup>2</sup>  
USGS MAPS: Alsea  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Honeygrove Creek habitat survey extended 501 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 5.3 (range: 2.5 – 8.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.0 percent. Scour pools (78%) dominated stream habitat. Gravel (42%) and fines (34%) dominated stream substrate. Wood volume was low at 19.8 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

T14S-R7W-S5NW

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 avg: 5.3 range: 2.5-8.0

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	501	2,027	0
Secondary	120	212	2

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.3	Width	8.0	10.8	12.4
Depth	0.44	Height	0.5	0.9	1.1
		W:D ratio	17.4	Entrenchment	1.5

Stream Flow Type: LF Water Temp: 14.5-14.5°C  
 Avg. Unit Gradient: 1.0% Habitat Units/100m: 5.2

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 94%
Undercut Banks	44%	Range: 75-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	111	22.1
Volume (m <sup>3</sup> )	99	19.8
Key pieces ( $\geq 1.0m \times 0.6m$ )	5	1.0

REACH 1

T14S-R7W-S5NW

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	Cbbl	Bldr	Bdrk
POOL-BACKWATER	1	9	4.9	0.20	44	0	95	5	0	0	0	0
POOL-ISOLATED	2	27	2.5	0.48	80	0	88	13	0	0	0	0
POOL-LATERAL SCOUR	17	370	4.4	0.66	1,736	1	38	28	33	1	0	0
PUDDLED CHANNEL	2	77	0.9	0.37	79	0	58	35	8	0	0	0
RIFFLE	9	133	1.9	0.12	285	0	7	15	76	2	0	0
STEP/COBBLE	1	5	2.8	0.07	15	0	0	3	97	0	0	0
<b>Total:</b>	<b>32</b>	<b>621</b>	<b>3.3</b>	<b>0.44</b>	<b>2,239</b>	<b>1</b>	<b>Avg:34</b>	<b>22</b>	<b>42</b>	<b>1</b>	<b>0</b>	<b>0</b>

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m <sup>2</sup> )	Percent	Large Boulders Number	#/100m <sup>2</sup>
Dammed & BW Pools	3	36	3.3	0.38	124	5.51	0	0.0
Scour Pools	17	370	4.4	0.66	1,736	77.54	1	0.1
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	9	133	1.9	0.12	285	12.74	0	0.0
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	1	5	2.8	0.07	15	0.67	0	0.0
Dry	2	77	0.9	0.37	79	3.54	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	20	32.2
Pools ≥1m deep:	4	6.4
Complex pools (LWD pieces≥3):	9	14.5
Pool Frequency (channel widths/pool):	3.9	
Residual pool depth (avg)	0.58m	

STREAM SUMMARY

HONEYGROVE CREEK POST-TX (#35)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
32	621	3.3	0.44	2,239	34	22	42	1	0	0	1

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	1,736	77.5
Backwater Pools	124	5.5
Glide	0	0.0
Riffle	285	12.7
Rapid	0	0.0
Cascade	0	0.0
Step	15	0.7
Dry	79	3.5

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	691
Total conifers/1000 ft	81
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	0.7	0.0	0.0	0.7	4.0	0.7	4.7
15-30cm	0.0	0.7	0.0	1.0	0.0	1.7	0.0	3.3
30-50cm	0.0	0.3	0.0	0.3	0.7	2.0	0.7	2.7
50-90cm	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m <sup>2</sup>	0.0	2.0	0.0	1.3	1.3	8.0	0.4	3.8

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	69		51		53	
Shrub cover	9		9		13	
Grass/forb cover	88		87		79	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	17		17		33
High terrace	83		83		67	
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 (%)	4		3		3	

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

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

Total hardwoods/1000 ft	691
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.7	4.7
15-30cm	0.0	3.3
30-50cm	0.7	2.7
50-90cm	0.0	0.7
>90cm	0.0	0.0

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RIPARIAN ZONE VEGETATION

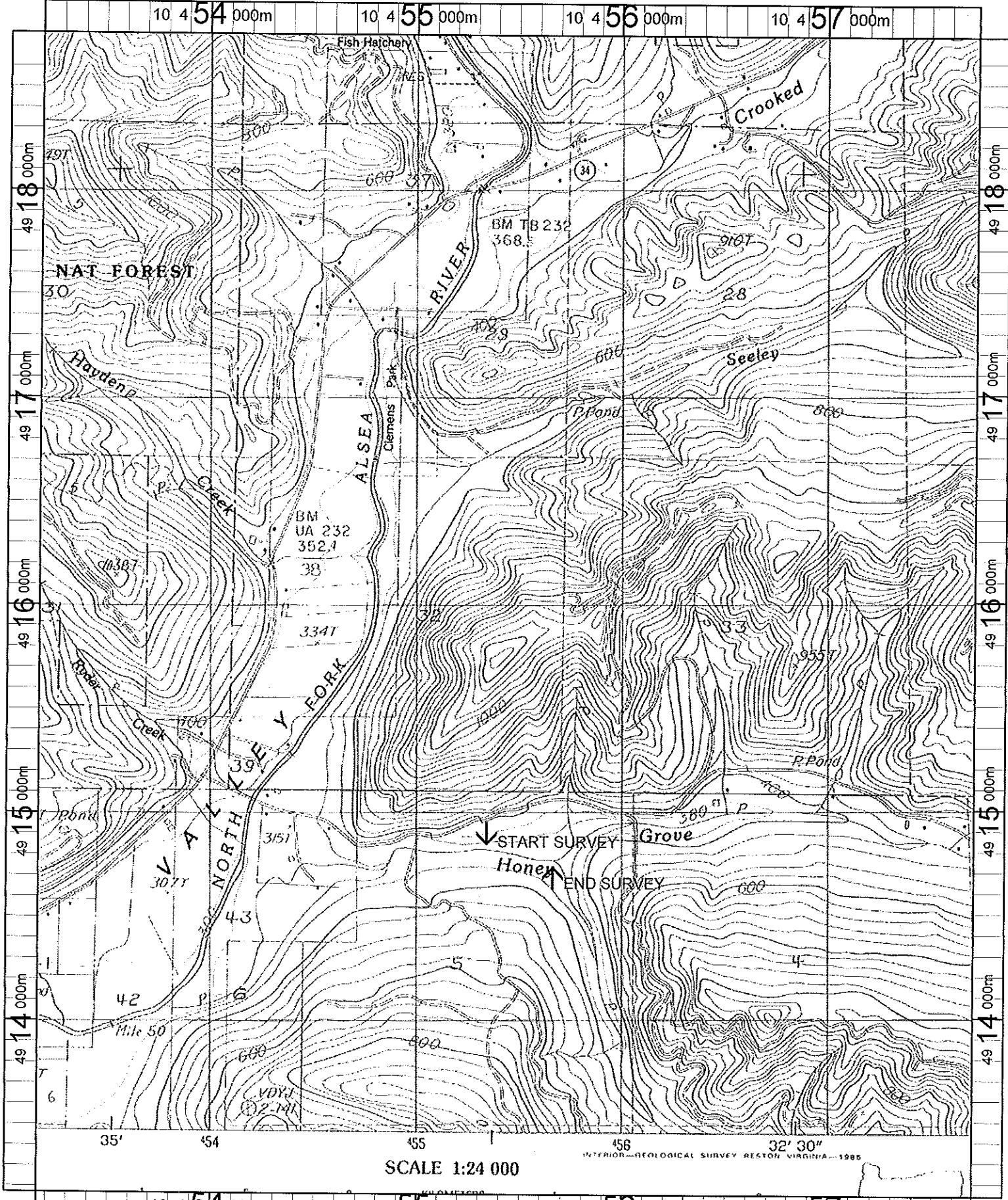
Reach 1

Reach 1

VEGETATION DETAIL

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
11	LF	1	HS	25.0	75	5	95	Conifer	0	0	0	0	0	
								Hardwood	2	1	0	0	0	
11	LF	2	HS	15.0	30	10	85	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
11	LF	3	HS	5.0	20	10	80	Conifer	2	0	0	0	0	
								Hardwood	0	0	0	0	0	
11	RT	1	HT	0.0	60	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
11	RT	2	HT	0.0	60	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
11	RT	3	HT	0.0	75	0	80	Conifer	0	0	0	0	0	
								Hardwood	2	0	6	1	0	
18	LF	1	HT	0.0	70	10	85	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
18	LF	2	HT	0.0	60	10	85	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
18	LF	3	HT	0.0	60	10	70	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
18	RT	1	HT	0.0	40	30	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
18	RT	2	HT	0.0	60	30	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
18	RT	3	HT	0.0	60	30	70	Conifer	0	0	1	0	0	
								Hardwood	0	0	0	0	0	
25	LF	1	HT	0.0	80	10	90	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	1	0	
25	LF	2	HT	0.0	85	5	90	Conifer	0	0	0	0	0	
								Hardwood	0	3	0	0	0	
25	LF	3	HS	10.0	85	5	95	Conifer	0	0	0	0	0	
								Hardwood	6	4	0	0	0	
25	RT	1	HT	0.0	90	0	95	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
25	RT	2	HT	0.0	10	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
25	RT	3	HT	0.0	20	20	80	Conifer	0	0	1	0	0	
								Hardwood	4	0	0	0	0	





Name: ALSEA  
 Date: 1/10/2002  
 Scale: 1 inch equals 2000 feet

Location: 10 455443 E 4915949 N  
 Caption: HONEY GROVE CREEK RESTORATION SITE -  
 ALSEA BASIN