

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

STREAM: Jackass Creek (W-271)  
BASIN: Yamhill River  
SURVEY TYPE: Pre-Tx  
DATE: August 15, 2006  
SURVEY CREW: Annette Garrigues, Jeff Snyder  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 6.0 km<sup>2</sup>  
USGS MAPS: Midway  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Jackass Creek habitat survey extended 607 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 20.0. Land use for the reach was rural residential. The average unit gradient was 3.0 percent. Riffles (40%) and rapids (36%) dominated stream habitat. Gravel (28%) and cobble (27%) dominated stream substrate. Wood volume was very low at 0.9 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

T06S-R08W-S10SE

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	20.0	VWI Range:	20 - 20

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	607	1,905	0
Secondary Channel	0	0	0
Off-Channel Units	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.2	Width: 6.0	10.5 ( 6.8 - 13.2 )	17.5 ( 12 - 20.1 )
Depth: 0.24	Height: 0.4	0.9 ( 0.8 - 1 )	1.6 ( 1.4 - 2.3 )

W:D ratio: 14.0  
 Stream Flow Type: LF  
 Average Unit Gradient: 3.0%  
 Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.8  
 Habitat Units/100m (total channel length): 6.1  
 Habitat Units/100m (primary channel length): 6.1

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	
Riparian Vegetation:	D15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	61%	Reach avg: 85%
Undercut Banks:	31%	Range: 22 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	11	1.8
Volume (m <sup>3</sup> ):	5	0.9
Key pieces (>=12m x 0.60m):	0	0.0

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

8/15/2006

REACH 1		T06S-R08W-S10SE					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	12	4.9	0.20	61	40	40	10	10	10	30	0
POOL-LATERAL SCOUR	11	114	3.5	0.49	391	61	2	17	31	30	7	13
RAPID/BEDROCK	3	63	2.3	0.12	149	33	0	2	2	7	7	83
RAPID/BOULDERS	8	169	3.2	0.14	532	275	1	13	28	35	23	0
RIFFLE	12	244	3.2	0.14	757	308	0	14	33	29	20	5
STEP/BEDROCK	1	3	2.5	0.02	9	4	0	0	5	5	5	85
STEP/COBBLE	1	2	3.9	0.05	6	3	0	10	40	30	20	0
<b>Total:</b>	<b>37</b>	<b>607</b>	<b>3.2</b>	<b>0.24</b>	<b>1,905</b>	<b>724</b>	<b>Avg: 2</b>	<b>13</b>	<b>28</b>	<b>27</b>	<b>16</b>	<b>14</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	0	0			0	0.00%	0	0.0	
Scour Pools	11	114	3.5	0.49	391	20.54%	61	15.6	
Glides	0	0			0	0.00%	0	0.0	
Riffles	12	244	3.2	0.14	757	39.73%	308	40.7	
Rapids	11	232	2.9	0.13	682	35.77%	308	45.2	
Cascades	1	12	4.9	0.20	61	3.19%	40	65.8	
Step/Falls	2	5	3.2	0.04	15	0.77%	7	47.5	
Dry	0	0			0	0.00%	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:	11	18.1	18.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	9.2		
Residual pool depth (avg):	0.46		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

JACKASS CREEK PRE-TX  
GCG: 8-W SITE ID: 271

Survey Date 8/15/2006

RIPARIAN ZONE

Report Date: 3/5/2007

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	833
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1		Zone 2		Zone 3		Zones 1-3	
	0-10 meters		10 - 20 meters		20 - 30 meters		0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.7	7.3	0.0	3.0	0.0	1.0	0.7	11.3
15-30cm	0.3	2.0	0.0	0.3	0.0	0.0	0.3	2.3
30-50cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
50-90cm	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.3	9.3	0.3	3.3	0.0	1.0	0.6	4.6

Canopy closure and ground cover

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	62		4		3	
Shrub cover	22		15		8	
Grass/forb cover	38		66		83	

Predominant landform in each zone

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		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 (%)	24		5		5	

**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	833
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	20
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	0.7	11.3
15-30cm	0.3	2.3
30-50cm	0.3	0.0
50-90cm	0.3	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1 Reach 1

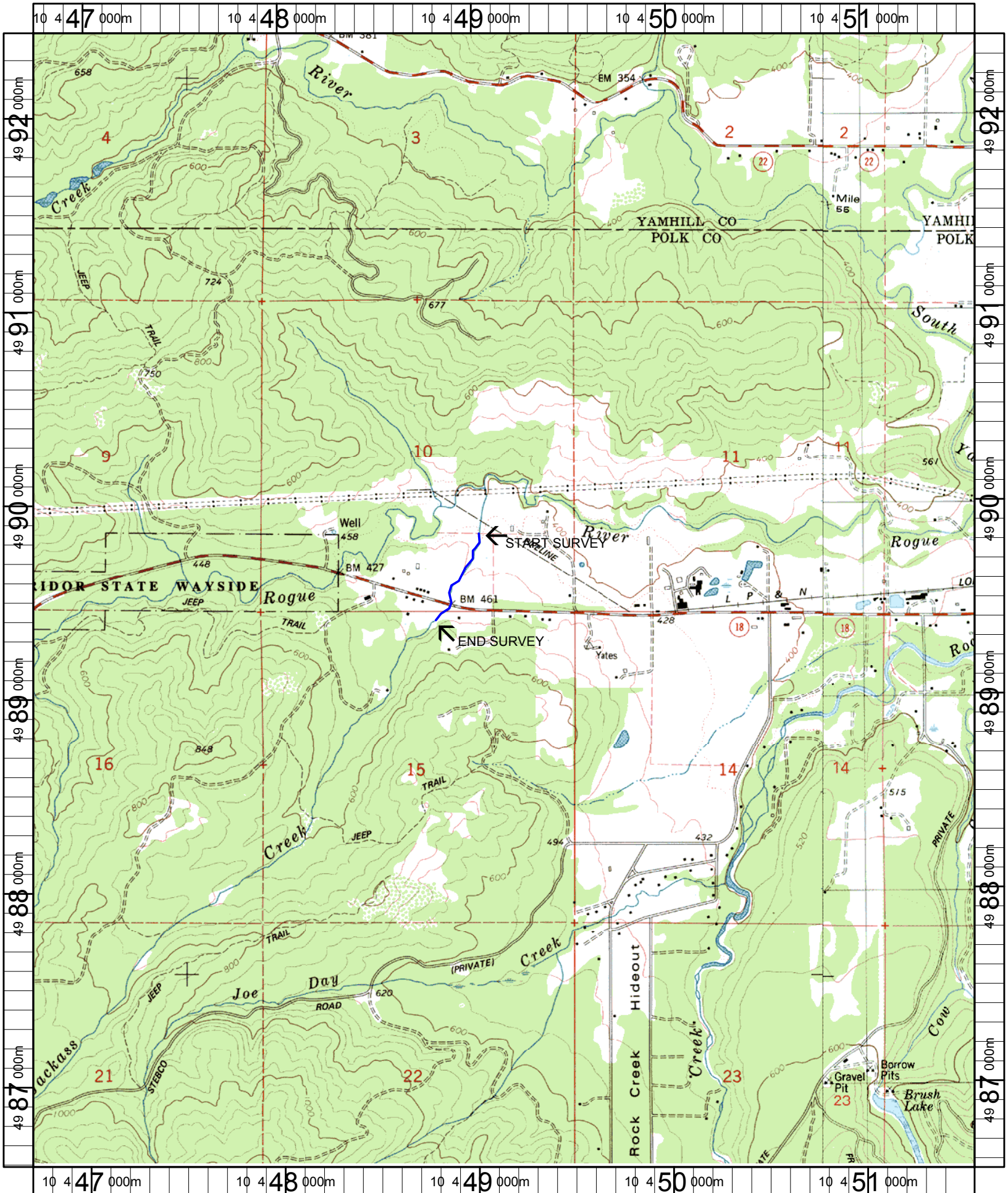
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
10	LF	3	HT	2	10	40	40	Conifer							
								Hardwood	1						
10	RT	3	HT	12	0	0	90	Conifer							
								Hardwood							
10	RT	1	HT	16	90	50	40	Conifer	2					TRANS	
								Hardwood	2	1					
10	LF	2	HT	2	10	10	20	Conifer							
								Hardwood	7						
10	LF	1	HT	14	30	10	10	Conifer							
								Hardwood	2	2				UTM 0449010-4989739-3D, TRANS	
10	RT	2	HT	14	10	75	20	Conifer							
								Hardwood	2						
17	RT	3	HT	7	0	0	90	Conifer							
								Hardwood							
17	RT	2	HT	6	0	2	90	Conifer							
								Hardwood							
17	LF	1	HT	9	50	30	40	Conifer							
								Hardwood	7					UTM 0448948-4989644-3D, TRANS	
17	LF	2	HT	1	1	0	90	Conifer							
								Hardwood		1					
17	RT	1	HT	10	50	20	60	Conifer						TRANS	
								Hardwood	1						
17	LF	3	HT	3	5	5	90	Conifer							
								Hardwood	2						
27	RT	3	HT	1	0	0	95	Conifer							
								Hardwood							
27	RT	2	HT	2	0	0	95	Conifer							
								Hardwood							
27	RT	1	HT	34	80	10	30	Conifer			1			TRANS	
								Hardwood	8	3					
27	LF	3	HT	2	0	0	95	Conifer							
								Hardwood							
27	LF	2	HT	4	5	5	80	Conifer			1			CROSS FENCE LINE	
								Hardwood							
27	LF	1	HT	58	70	10	50	Conifer					1	UTM 0448858-4989551-3D, TRANS	
								Hardwood	2						

# Comment Summary

## Restoration Monitoring Sites 2006

MONITORING AREA: 8-W      SITE ID: 271      JACKASS CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SC	00	1.6			PLASTIC PIPE IN STREAM
24	SR	00	363.9		H=0.30M	H=0.30M
27	RI	00	413.2			FISH
30	RB	00	482.2	BC, HS		HS=ROCKS
31	CB	00	494.6	HS, DJ	DJ	HS=WOOD
32	RI	00	523.7	UD		DIVERTED 50% H2O TO D
36	LP	00	589.2			FISH
37	RI	00	606.8		END SURVEY	



Name: MIDWAY  
 Date: 1/6/2005  
 Scale: 1 inch equals 2000 feet

Location: 10 449146 E 4989496 N  
 Caption: JACKASS CREEK RESTORATION SITE - YAMHILL BASIN