

**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: March 3, 2005
SURVEY CREW: Sheila Davis, Brian Bangs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.0 km²
USGS MAPS: Midway
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Jackass Creek habitat survey extended 618 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 agriculture and rural residential. The average unit gradient was 3.4 percent. Rapids (56%) dominated stream habitat. Cobble (31%), gravel (26%) and boulders (22%) dominated stream substrate. Wood volume was very low at 1.0 m³/100m.

COMMENTS:

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

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 | 618 | 2,134 | 0 |
| Secondary Channel | 18 | 25 | 2 |
| Off-Channel Units | 11 | 8 | 0 |

Channel Dimensions (m)

| <u>Wetted</u> | <u>Active</u> | <u>Floodprone</u> n = 6 | <u>First Terrace</u> n = 6 |
|---------------|---------------|-------------------------|----------------------------|
| Width: 3.2 | Width: 5.7 | 9.0 (6.1 - 14.1) | 13.8 (7.2 - 24.6) |
| Depth: 0.26 | Height: 0.3 | 0.7 (0.5 - 0.8) | 1.4 (0.8 - 2.3) |

W:D ratio: 18.1
 Stream Flow Type: MF
 Average Unit Gradient: 3.4%
 Water temperature (°C): 7.5 - 7.5

Entrenchment (ACW:FPW ratio): 1.6
 Habitat Units/100m (total channel length): 8.8
 Habitat Units/100m (primary channel length): 9.2

Riparian, Bank, and Wood Summary

| | <u>Primary</u> | <u>Secondary</u> |
|----------------------|----------------|------------------|
| Land Use: | AG | RR |
| Riparian Vegetation: | D3 | D15 |

Bank Condition and Shade

| <u>Bank Status</u> | <u>Percent Reach Length</u> | <u>Shade (% of 180)</u> |
|--------------------|-----------------------------|-------------------------|
| Actively Eroding: | | Reach avg: |
| Undercut Banks: | | Range: - |

Large Wood Debris

| | <u>Total</u> | <u>Total / 100m primary channel</u> |
|-----------------------------|--------------|-------------------------------------|
| All pieces (>=3m x 0.15m): | 35 | 5.7 |
| Volume (m ³): | 6 | 1.0 |
| Key pieces (>=12m x 0.60m): | 0 | 0.0 |

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

3/3/2005

| 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 ²) | Large Boulders (#>0.5m) | Substrate Percent Wetted Area | | | | | |
| | | | | | | | S/O | Snd | Grvl | Cbl | Bldr | Bdrk |
| CASCADE/BOULDERS | 1 | 10 | 3.2 | 0.25 | 31 | 0 | 0 | 0 | 10 | 40 | 50 | 0 |
| DRY CHANNEL | 1 | 15 | 1.4 | 0.00 | 22 | 0 | 25 | 0 | 15 | 30 | 30 | 0 |
| POOL-BACKWATER | 3 | 11 | 1.0 | 0.17 | 8 | 0 | 15 | 15 | 26 | 30 | 13 | 0 |
| POOL-DAMMED | 1 | 8 | 3.7 | 0.80 | 31 | 0 | 28 | 22 | 11 | 17 | 11 | 11 |
| POOL-LATERAL SCOUR | 13 | 117 | 3.4 | 0.56 | 404 | 0 | 7 | 7 | 20 | 28 | 23 | 15 |
| PUDDLED UNIT | 1 | 3 | 1.4 | 0.10 | 4 | 0 | 15 | 0 | 35 | 30 | 20 | 0 |
| RAPID/BEDROCK | 3 | 50 | 3.0 | 0.13 | 150 | 0 | 0 | 2 | 10 | 9 | 10 | 70 |
| RAPID/BOULDERS | 19 | 297 | 3.6 | 0.16 | 1,072 | 0 | 1 | 3 | 29 | 37 | 28 | 3 |
| RIFFLE | 11 | 129 | 3.1 | 0.19 | 420 | 0 | 3 | 6 | 33 | 28 | 19 | 11 |
| STEP/BEAVER DAM | 1 | 1 | 2.8 | 0.05 | 1 | 0 | 40 | 25 | 35 | 0 | 0 | 0 |
| STEP/COBBLE | 3 | 7 | 3.4 | 0.10 | 25 | 0 | 0 | 3 | 32 | 42 | 23 | 0 |
| Total: | 57 | 648 | 3.2 | 0.26 | 2,167 | 0 | Avg: 5 | 6 | 26 | 31 | 22 | 10 |

| 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 | 4 | 20 | 1.7 | 0.33 | 38 | 1.77% | 0 | 0.0 | |
| Scour Pools | 13 | 117 | 3.4 | 0.56 | 404 | 18.65% | 0 | 0.0 | |
| Glides | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Riffles | 11 | 129 | 3.1 | 0.19 | 420 | 19.40% | 0 | 0.0 | |
| Rapids | 22 | 347 | 3.5 | 0.16 | 1,222 | 56.37% | 0 | 0.0 | |
| Cascades | 1 | 10 | 3.2 | 0.25 | 31 | 1.42% | 0 | 0.0 | |
| Step/Falls | 4 | 8 | 3.3 | 0.09 | 27 | 1.23% | 0 | 0.0 | |
| Dry | 2 | 18 | 1.4 | 0.05 | 25 | 1.16% | 0 | 0.0 | |
| Culverts | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |

| POOL SUMMARY | | | |
|---------------------------------------|--------------|---|---|
| | <u>Total</u> | Total of all Channel Lengths <u># / Km</u> | Primary Channel Length <u># / Km</u> |
| All Pools: | 17 | 26.3 | 27.5 |
| Pools >=1m deep: | 0 | 0.0 | 0.0 |
| Complex pools (LWD pieces>=3): | 1 | 1.5 | 1.6 |
| Pool frequency (channel widths/pool): | 6.6 | | |
| Residual pool depth (avg): | 0.41 | | |

Comment Summary

Restoration Monitoring Sites 2005

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

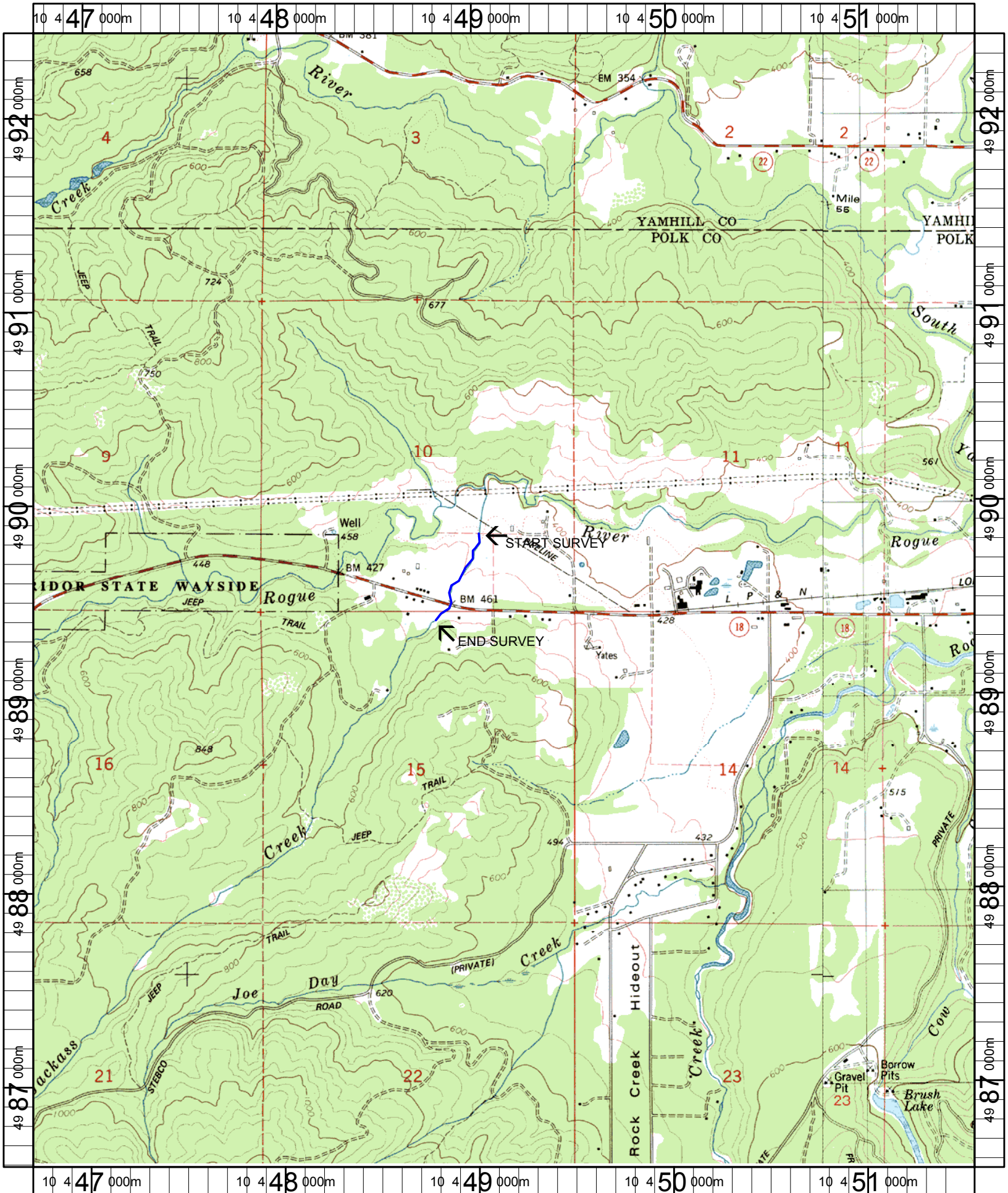
| UNIT# | TYPE | CHAN | DIST. (m) | COMMENTS | NOTE ESTIMATOR | NOTE NUMERATOR |
|-------|------|------|-----------|------------|--------------------------------|----------------|
| 1 | RB | 00 | 3.9 | | CT MT D3 D15 AG RR | |
| 2 | LP | 00 | 14 | | IRRIGATION TUBE ON LT CHANNEL, | |
| 3 | RI | 00 | 22.9 | BV | TUBE IN UNITS 2, 3, 4 | |
| 5 | LP | 00 | 33.4 | DJ | | |
| 6 | SD | 00 | 33.9 | BV, DJ, BD | H = 0.35M | |
| 7 | DP | 00 | 42.2 | BV | | |
| 9 | RB | 00 | 54.8 | BV DJ | | |
| 10 | LP | 00 | 61.5 | BV | | |
| 15 | RB | 00 | 126.2 | BV DJ | | |
| 16 | RI | 01 | 133.7 | DJ | CT CT D30 D15 AG RR | |
| 18 | RB | 00 | 155.9 | BV | | |
| 21 | RB | 00 | 193 | BV | | |
| 22 | RI | 00 | 201.7 | DJ | | |
| 23 | RB | 00 | 225.7 | BV | | |
| 25 | RI | 00 | 253.5 | BV DJ BD | BV DAM, NO STEP | |
| 26 | RB | 00 | 274.7 | | CT MT D3 D30 AG RR | |
| 28 | RB | 00 | 305 | BV | | |
| 32 | RR | 00 | 361.2 | /SS | | |
| 34 | RR | 00 | 377.4 | | CT CT C50 D3 RR AG | |
| 35 | LP | 00 | 396.4 | DJ BV | | |
| 37 | LP | 00 | 405.8 | BV | | |

Comment Summary

Restoration Monitoring Sites 2005

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

| UNIT# | TYPE | CHAN | DIST. (m) | COMMENTS | NOTE ESTIMATOR | NOTE NUMERATOR |
|-------|------|------|-----------|----------|------------------------------|----------------|
| 39 | LP | 00 | 424.6 | /SS | | |
| 41 | RI | 00 | 437.1 | /CE BV | CE IS DRY | |
| 45 | RB | 00 | 478.3 | BV | | |
| 46 | RB | 00 | 495.7 | CS/CS BC | HWY 18 BRIDGE CROSSES HERE | |
| 47 | CB | 00 | 505.3 | BV DJ | CT MT D30 S RR AG | |
| 49 | BW | 10 | 525.2 | CS | SANDBAGS ALONG SIDE | |
| 51 | RB | 01 | 573.1 | | IRRIGATION PUMP CHANNEL LEFT | |
| 54 | LP | 00 | 588 | DJ BV | | |
| 56 | LP | 00 | 598.2 | BV | | |
| 57 | RB | 00 | 618.3 | | CT MT D15 S RR LT | |



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