

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

STREAM: Toms Creek (MS-296)
BASIN: Coos River
SURVEY TYPE: Reference
DATE: February 2, 2005
SURVEY CREW: Jennifer Schmitt, Neil Jensen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 0.9 km²
USGS MAPS: Charleston
ECOREGION: Coastal Lowlands

GENERAL DESCRIPTION:

The Toms Creek habitat survey extended 471 meters. The channel was unconstrained in a wide flood plain. The average valley width index was 27.4 (range: 1.0-65.0). Land use for the reach was wetland and conservation area. The average unit gradient was 0.3 percent. Scour pools (61%) and beaver pools (38%) dominated stream habitat. Silt (73%) dominated stream substrate. Wood volume was very low at 4.9 m³/100m.

COMMENTS:

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

REACH 1

T26S-R14W-S36NW

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 | 0% |
| Open V-shape | 0% | Wide Floodplain | 100% |
| Valley Width Index | 27.4 | VWI Range: | 1 - 65 |

Channel Morphology (Percent Reach Length)

| <u>Constrained</u> | | <u>Unconstrained</u> | |
|--------------------|----|----------------------|------|
| Hillslope | 0% | Single Channel | 100% |
| Bedrock | 0% | Multiple Channel | 0% |
| Terrace | 0% | 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 | 471 | 5,416 | 0 |
| Secondary Channel | 0 | 0 | 0 |
| Off-Channel Units | 0 | 0 | 0 |

Channel Dimensions (m)

| <u>Wetted</u> | <u>Active</u> | <u>Floodprone</u> | <i>n = 5</i> | <u>First Terrace</u> | <i>n = 0</i> |
|---------------|---------------|-------------------|-----------------|----------------------|--------------|
| Width: 9.4 | Width: 15.1 | 58.2 | (30.4 - 100) | (-) | (-) |
| Depth: 0.46 | Height: 0.4 | 0.7 | (0.24 - 1.08) | (-) | (-) |

W:D ratio: 98.8

Entrenchment (ACW:FPW ratio): 28.5

Stream Flow Type: MF

Habitat Units/100m (total channel length): 3.4

Average Unit Gradient: 0.3%

Habitat Units/100m (primary channel length): 3.4

Water temperature (°C): 4.5 - 4.5

Riparian, Bank, and Wood Summary

| | <u>Primary</u> | <u>Secondary</u> |
|----------------------|----------------|------------------|
| Land Use: | WL | CR |
| Riparian Vegetation: | G | |

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): | 19 | 4.0 |
| Volume (m ³): | 23 | 4.9 |
| Key pieces (>=12m x 0.60m): | 1 | 0.2 |

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/2/2005

| REACH 1 | | T26S-R14W-S36NW | | | | | 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 |
| POOL-BEAVER DAM | 4 | 164 | 13.9 | 0.63 | 2,074 | 0 | 90 | 10 | 0 | 0 | 0 | 0 |
| POOL-LATERAL SCOUR | 7 | 278 | 9.1 | 0.63 | 3,307 | 0 | 66 | 26 | 8 | 0 | 0 | 0 |
| RIFFLE | 1 | 25 | 0.3 | 0.11 | 8 | 0 | 11 | 21 | 63 | 0 | 0 | 5 |
| STEP/BEAVER DAM | 4 | 4 | 7.8 | 0.06 | 27 | 0 | 83 | 15 | 1 | 0 | 0 | 0 |
| Total: | 16 | 471 | 9.4 | 0.46 | 5,416 | 0 | Avg: 73 | 19 | 8 | 0 | 0 | 0 |

| 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 | 164 | 13.9 | 0.63 | 2,074 | 38.29% | 0 | 0.0 | |
| Scour Pools | 7 | 278 | 9.1 | 0.63 | 3,307 | 61.06% | 0 | 0.0 | |
| Glides | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Riffles | 1 | 25 | 0.3 | 0.11 | 8 | 0.16% | 0 | 0.0 | |
| Rapids | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Cascades | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Step/Falls | 4 | 4 | 7.8 | 0.06 | 27 | 0.50% | 0 | 0.0 | |
| Dry | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Culverts | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |

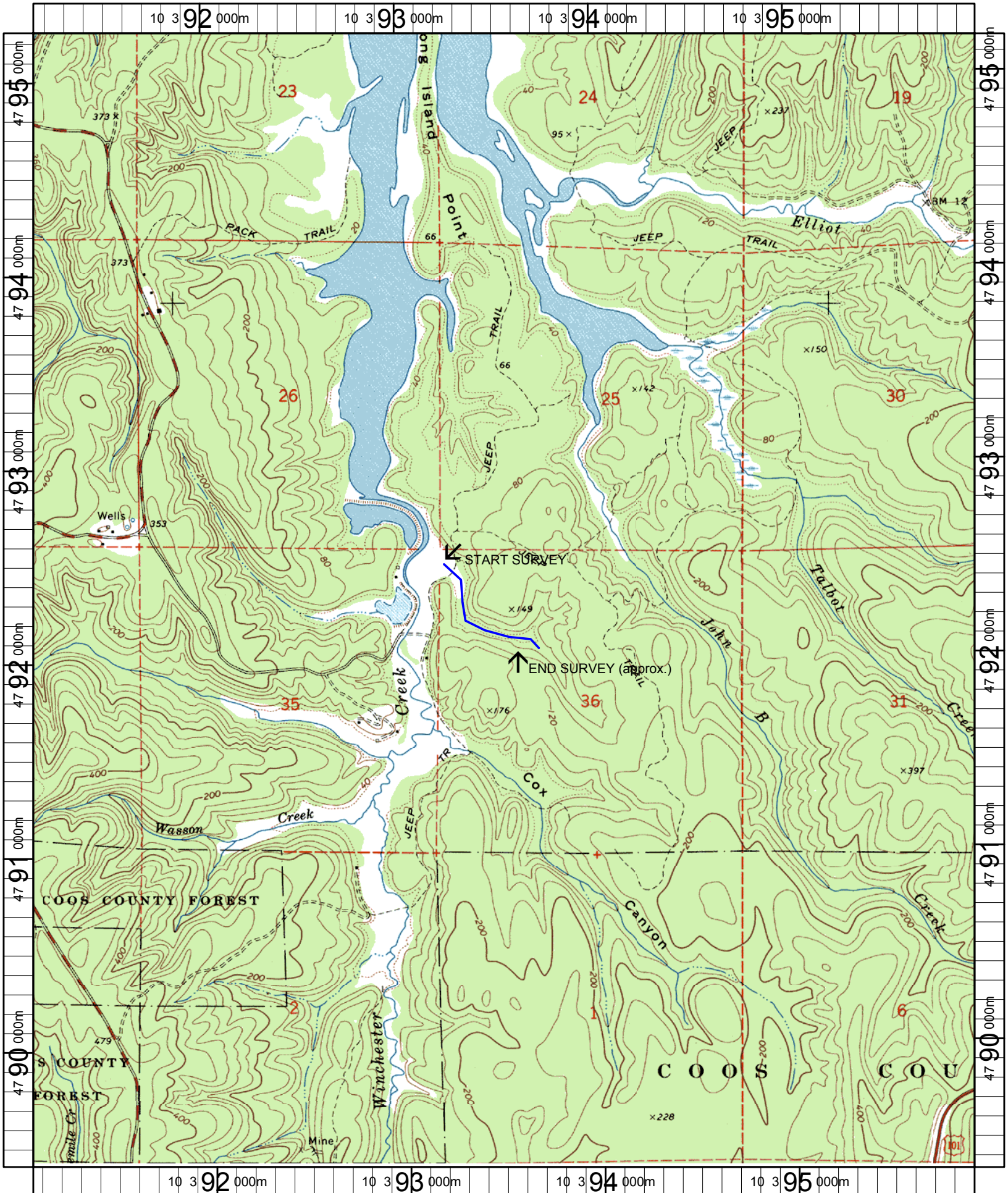
| POOL SUMMARY | | | |
|---------------------------------------|--------------|--|--|
| | <u>Total</u> | <u>Total of all Channel Lengths # / Km</u> | <u>Primary Channel Length # / Km</u> |
| All Pools: | 11 | 23.4 | 23.4 |
| Pools >=1m deep: | 0 | 0.0 | 0.0 |
| Complex pools (LWD pieces>=3): | 2 | 4.2 | 4.2 |
| Pool frequency (channel widths/pool): | 2.8 | | |
| Residual pool depth (avg): | 0.56 | | |

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **296** TOMS CREEK REFERENCE

| UNIT# | TYPE | CHAN | DIST. (m) | COMMENTS | NOTE ESTIMATOR | NOTE NUMERATOR |
|-------|------|------|-----------|----------|----------------|----------------------------|
| 2 | LP | 00 | 74 | | | SMALL RIFFLE BETWEEN POOLS |
| 3 | RI | 00 | 98.7 | | | BEDROCK IS HARDPAN |
| 4 | LP | 00 | 161 | SS/ | | HEAVY TANNIN LOADS |
| 5 | LP | 00 | 170.3 | | | RIFFLE BETWEEN POOLS |
| 6 | SD | 00 | 171.5 | BD | | H = 0.4 |
| 7 | BP | 00 | 238.7 | BV | | HIGH TANNINS |
| 8 | LP | 00 | 265.5 | BV | | |
| 9 | SD | 00 | 266.6 | BD | | H = .47 |
| 10 | BP | 00 | 290.9 | WL, BV | | RSN |
| 11 | SD | 00 | 291.8 | BD | | H = 0.1 |
| 12 | BP | 00 | 326 | BV | | |
| 13 | SD | 00 | 326.8 | BD | | H = .12 |
| 14 | BP | 00 | 365.1 | BV | | |
| 15 | LP | 00 | 420.6 | | | SMALL RIFFLE BETWEEN POOLS |
| 16 | LP | 00 | 470.7 | BD, BV | | SMALL RIFFLE BETWEEN POOLS |



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

Location: 10 393522 E 4792299 N
 Caption: TOMS CREEK RESTORATION SITE - COOS BASIN