**ODFW AQUATIC INVENTORY PROJECT**
**RESTORATION MONITORING**
**STREAM HABITAT REPORT**

| | |
|---|---|
| STREAM: | BIG TOM FOLLEY CR PHASE 2 |
| GCG: | 4-UMP |
| SITE ID: | 184 |
| BASIN: | UMPQUA |
| TREATMENT DATE: | 2003 |
| SURVEY DATE: | 3/11/2009 |
| SURVEY CREW: | David Jones / Ryan Emig |
| USGS MAPS: | ELKTON, PUTNAM VALLEY |
| ECOREGION: | Mid-Coastal Sedimentary |
| REPORT PREPARED BY: | Matt Strickland / Sharon Tippery / Charles Stein |

REACH: 1 LOCATION: T22S-R07W-S02NW

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces

Dominant landuse(s): Young forest trees (3-15 cm dbh)

Dominant riparian vegetation: Deciduous trees: size class 30-50cm dbh

Primary channel length (meters) and area ($m^2$): 617 : 6,583

Secondary channel length (meters) and area ($m^2$) 68 : 274

VWI average: 5.7 VWI Range: 4 - 9 Average Gradient: 1.9%

Pieces LWD per 100m: 8.9 Wood Volume ($m^3$) per 100m: 8.0

Percent pools: 26% Complex pools (LWD pieces>=3): 2 Pools >=1m deep: 3

| Percent substrate (avg): | Silt / organics | Sand | Gravel | Cobble | Boulder | Bedrock |
|---|---|---|---|---|---|---|
| All units | 0 | 12 | 19 | 20 | 15 | 35 |
| Pool units | 1 | 17 | 15 | 18 | 13 | 37 |
| Fast water units | 0 | 7 | 21 | 22 | 15 | 33 |

SURVEY COMMENTS:

The Big Tom Folley Creek Phase 2 habitat survey is a post-treatment, long term monitoring site. The crew noted habitat structures throughout. There were no potential barriers to upstream fish migration observed within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2004. Comparisons were made among key coho salmon habitat attributes: total secondary channel length, pieces of LWD per 100 m, wood volume per 100 m, percent pools, and complex pools. All key attributes decreased slightly except secondary channel length, which showed a slight increase.

**OREGON DEPARTMENT OF FISH AND WILDLIFE** **BIG TOM FOLLEY CR PHASE 2**

**HABITAT INVENTORY** **GCG: 4-UMP SITE ID: 184**

**Survey Date: 3/11/2009**

**Report Date: 2/16/2010** **T22S-R07W-S02NW** **REACH 1**

## Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

| Narrow Valley Floor | | Broad Valley Floor | |
|---|---|---|---|
| Steep V-shape | 0% | Constraining Terraces | 100% |
| Moderate V-shape | 0% | Multiple Terraces | 0% |
| Open V-shape | 0% | Wide Floodplain | 0% |

Valley Width Index 5.7 VWI Range: 4 - 9

Channel Morphology (Percent Reach Length)

| Constrained | | Unconstrained | |
|---|---|---|---|
| Hillslope | 0% | Single Channel | 0% |
| Bedrock | 0% | Multiple Channel | 0% |
| Terrace | 100% | Braided Channel | 0% |
| Alt. Terrace/Hill | 0% | | |
| Landuse | 0% | | |

Channel Characteristics

| Type | Length (m) | Area (m2) | Dry Units |
|---|---|---|---|
| Primary | 617 | 6,583 | 0 |
| Secondary | 68 | 274 | 0 |

Channel Dimensions (m)

| Wetted | | Active | | Floodprone *n* = 5 | | First Terrace *n* = 5 | |
|---|---|---|---|---|---|---|---|
| Width: | 8.9 | Width: | 11.6 | 15.2 | ( 10 - 17.5 ) | 19.0 | ( 12 - 23 ) |
| Depth: | 0.57 | Height: | 0.5 | 1.0 | ( 0.9 - 1.3 ) | 2.3 | ( 1.6 - 3.3 ) |

W:D ratio: 23.0

Stream Flow Type: MF

Average Unit Gradient: 1.9%

Water temperature (°C): 6.0 - 6.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 4.1

Habitat Units/100m (primary channel length): 4.5

## Riparian, Bank, and Wood Summary

| | Primary | Secondary |
|---|---|---|
| Land Use: | YT | LT |
| Riparian Vegetation: | D30 | S |

Bank Condition and Shade

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

Large Wood Debris

| | Total | Total / 100m primary channel |
|---|---|---|
| All pieces (>=3m x 0.15m): | 55 | 8.9 |
| Volume ($m^3$): | 49 | 8.0 |
| Key pieces (>=12m x 0.60m): | 3 | 0.5 |

**OREGON DEPT OF FISH AND WILDLIFE** | **BIG TOM FOLLEY CR PHASE 2**

**HABITAT INVENTORY** | **GCG: 4-UMP SITE ID: 184**

**Survey Date: 3/11/2009**

**Report Date: 2/16/2010** | **T22S-R07W-S02NW** | **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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CULVERT CROSSING | 1 | 19 | 2.7 | 0.60 | 51 | 0 | | 0 | 9 | 14 | 9 | 5 | 64 |
| POOL-BACKWATER | 1 | 11 | 4.0 | 0.50 | 44 | 0 | | 0 | 81 | 5 | 5 | 5 | 5 |
| POOL-LATERAL SCOUR | 6 | 146 | 10.3 | 0.99 | 1,703 | 0 | | 1 | 18 | 14 | 19 | 12 | 37 |
| POOL-PLUNGE | 1 | 9 | 7.0 | 0.90 | 63 | 0 | | 0 | 10 | 20 | 15 | 15 | 40 |
| RAPID/BEDROCK | 2 | 28 | 6.5 | 0.25 | 167 | 0 | | 0 | 5 | 12 | 17 | 10 | 56 |
| RAPID/BOULDERS | 5 | 163 | 8.6 | 0.43 | 1,477 | 0 | | 0 | 7 | 32 | 31 | 17 | 13 |
| RIFFLE | 4 | 180 | 11.4 | 0.48 | 2,083 | 0 | | 0 | 9 | 12 | 12 | 11 | 56 |
| RIFFLE W/ POCKETS | 5 | 114 | 9.7 | 0.47 | 1,152 | 0 | | 0 | 7 | 22 | 24 | 20 | 27 |
| STEP/BEDROCK | 1 | 5 | 6.5 | 0.25 | 33 | 0 | | 0 | 5 | 5 | 5 | 14 | 73 |
| STEP/BOULDERS | 1 | 3 | 6.0 | 0.40 | 15 | 0 | | 0 | 5 | 35 | 20 | 40 | 0 |
| STEP/COBBLE | 1 | 7 | 10.0 | 0.40 | 70 | 0 | | 0 | 5 | 15 | 35 | 10 | 35 |
| **Total:** | 28 | 684 | 8.9 | 0.57 | 6,856 | 0 | **Avg:** | 0 | 12 | 19 | 20 | 15 | 35 |

## HABITAT SUMMARY

| Habitat Group | Number Units | Total Length (m) | Avg Width (m) | Avg Depth (m) | Wetted Area ($m^2$) | Wetted Area Percent | Large Boulders Number | Large Boulders (# / $100m^2$) |
|---|---|---|---|---|---|---|---|---|
| Dammed & BW Pools | 1 | 11 | 4.0 | 0.50 | 44 | 0.64% | 0 | 0.0 |
| Scour Pools | 7 | 155 | 9.9 | 0.98 | 1,766 | 25.76% | 0 | 0.0 |
| Glides | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 |
| Riffles | 9 | 294 | 10.4 | 0.47 | 3,234 | 47.17% | 0 | 0.0 |
| Rapids | 7 | 191 | 8.0 | 0.38 | 1,644 | 23.97% | 0 | 0.0 |
| Cascades | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 |
| Step/Falls | 3 | 15 | 7.5 | 0.35 | 118 | 1.71% | 0 | 0.0 |
| Dry | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 |
| Culverts | 1 | 19 | 2.7 | 0.60 | 51 | 0.75% | 0 | 0.0 |

**OREGON DEPT OF FISH AND WILDLIFE** **BIG TOM FOLLEY CR PHASE 2**

**HABITAT INVENTORY** **GCG: 4-UMP SITE ID: 184**

**Survey Date: 3/11/2009**

**Report Date: 2/16/2010** **T22S-R07W-S02NW** **REACH 1**

## POOL SUMMARY

| | Total | Total of all Channel Lengths # / Km | Primary Channel Length # / Km |
|---|---|---|---|
| All Pools: | 8 | 11.7 | 13.0 |
| Pools >=1m deep: | 3 | 4.4 | 4.9 |
| Complex pools (LWD pieces>=3): | 2 | 2.9 | 3.2 |
| Pool frequency (channel widths/pool): | 7.4 | | |
| Residual pool depth (avg): | 0.51 | | |

**OREGON DEPT OF FISH AND WILDLIFE** **OREGON PLAN MONITORING SITE**
**HABITAT INVENTORY** **SURVEY DATE: 3/11/2009**

# COMMENT SUMMARY

**MONITORING AREA: 4-UMP SITE ID: 184 STREAM: BIG TOM FOLLEY CR PHASE 2**

| REACH | UNIT# | TYPE | CHAN | DIST. (m) | COMMENTS | NOTES |
|---|---|---|---|---|---|---|
| 1 | 4 | LP | 01 | 163 | TJ/ | |
| 1 | 5 | RR | 11 | 163 | | ACW=4M, T=6C, SADDLE BUTTE CREEK |
| 1 | 6 | RI | 01 | 196 | HS,DJ | |
| 1 | 7 | BW | 10 | 196 | /SS | |
| 1 | 9 | RI | 00 | 253 | HS | |
| 1 | 13 | RI | 00 | 387 | /SS | |
| 1 | 14 | LP | 00 | 412 | DJ | |
| 1 | 18 | PP | 01 | 478 | TJ/ | SGS |
| 1 | 19 | LP | 11 | 478 | CS | SGS 22712.0 NF BIG TOM FOLLEY |
| 1 | 20 | CC | 11 | 478 | CC | |
| 1 | 21 | RB | 11 | 478 | CS | ACW=8M, T=7C |
| 1 | 23 | RP | 00 | 499 | CS/ | |
| 1 | 24 | LP | 00 | 508 | CS/ | |
| 1 | 25 | RB | 00 | 535 | CS/ | ACTIVE EROSION |
| 1 | 26 | SB | 00 | 537.5 | CS/ | |
| 1 | 27 | RP | 00 | 558.5 | CS/ | |
| 1 | 28 | RB | 00 | 616.5 | CS/ | CAN'T FIND END SIGN, ENDED 129M ABOVE TJ |

# Big Tom Folley Creek Phase 2 (UMP-184) 2009 Winter Habitat Survey Photographs

Unit 1 - Upstream view of the start of the survey.

View of confluence with Saddle Creek.

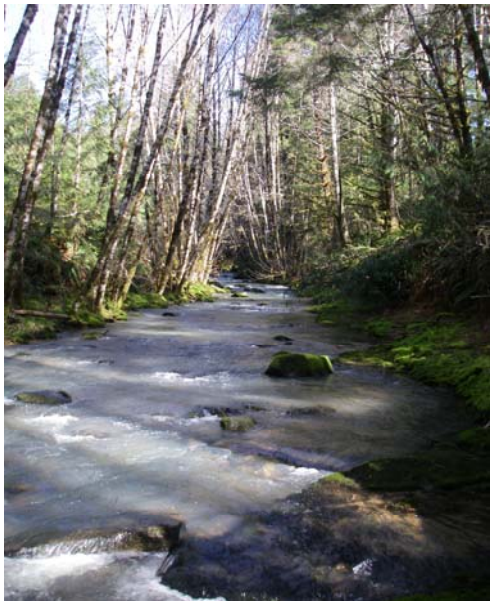
Bedrock cave just upstream from the confluence with Saddle Creek.

Upstream view of confluence with North Fork Big Tom Folley Creek. North Fork Big Tom Folley Creek culvert in background.

Confluence with North Fork Big Tom Folley Creek.

# Big Tom Folley Creek Phase 2 (UMP-184) 2009 Winter Habitat Survey Photographs

Upstream view of the end of the survey and constraining terraces.



Upstream view of rapid upstream of NF confluence.