

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

STREAM: Cedar Creek (NC-13)
BASIN: Wilson River
SURVEY TYPE: Post-Tx
DATE: February 12, 2001
SURVEY CREW: Sean Allen, Todd Boswell
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 13.3 km²
USGS MAPS: Jordan Creek
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Cedar Creek habitat survey extended 846 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.4 (range: 2.0 – 4.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.4 percent. Scour pools (37%) and riffles (36%) dominated stream habitat. Cobble (36%) and gravel (35%) dominated stream substrate. Wood volume was high at 48.5 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.
The crew noted several habitat structures during the survey.

REACH SUMMARY

REACH 1

T1N-R7W-S7NW

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: 3.4 range: 2.0-4.0

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

| <u>Type</u> | <u>Length(m)</u> | <u>Area (m2)</u> | <u>Dry Units</u> |
|-------------|------------------|------------------|------------------|
| Primary | 846 | 10,643 | 0 |
| Secondary | 541 | 1,757 | 6 |

Channel Dimensions (m)

| <u>Wetted</u> | | <u>Active</u> | | <u>Floodprone</u> | <u>First Terrace</u> |
|---------------|------|---------------|------|-------------------|----------------------|
| Width | 8.0 | Width | 18.5 | 31.2 | 42.5 |
| Depth | 0.48 | Height | 0.8 | 1.5 | 1.8 |
| | | W:D ratio | 23.1 | Entrenchment | 1.7 |

Stream Flow Type: MF Water Temp: 4.0-4.0°C
 Avg. Unit Gradient: 1.4% Habitat Units/100m: 3.8

Riparian, Bank, and Wood Summary

| | <u>Primary</u> | <u>Secondary</u> |
|----------------------|----------------|------------------|
| Land Use: | ST | |
| Riparian Vegetation: | M30 | |

Bank Condition and Shade

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

Large Woody Debris

| | <u>Total</u> | <u>Total/100m</u> |
|--------------------------|--------------|-------------------|
| All pieces (≥3m x 0.15m) | 139 | 16.4 |
| Volume (m ³) | 410 | 48.5 |
| Key pieces (≥10m x 0.6m) | 27 | 3.2 |

HABITAT UNIT SUMMARY

| REACH 1 | T1N-R7W-S7NW | | | | | | | | | | | 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 | Cbbl | Bldr | Bdrk |
| CASCADE/BOULDERS | 3 | 26 | 1.0 | 0.10 | 26 | 0 | 0 | 2 | 12 | 47 | 33 | 7 |
| DRY CHANNEL | 1 | 60 | 2.3 | 0.00 | 138 | 0 | 2 | 8 | 30 | 50 | 10 | 0 |
| DRY UNITS | 2 | 86 | 3.2 | 0.00 | 366 | 0 | 0 | 5 | 28 | 50 | 18 | 0 |
| POOL-BACKWATER | 4 | 43 | 4.0 | 0.48 | 183 | 0 | 1 | 27 | 42 | 24 | 5 | 0 |
| POOL-LATERAL SCOUR | 17 | 384 | 9.5 | 0.88 | 4,087 | 0 | 2 | 9 | 40 | 37 | 9 | 2 |
| POOL-STRAIGHT SCOUR | 1 | 42 | 12.9 | 1.80 | 542 | 0 | 3 | 22 | 30 | 30 | 15 | 0 |
| PUDDLED CHANNEL | 3 | 132 | 3.1 | 0.18 | 368 | 0 | 5 | 17 | 38 | 33 | 7 | 0 |
| RAPID/BOULDERS | 4 | 124 | 15.3 | 0.30 | 1,920 | 0 | 0 | 3 | 15 | 46 | 36 | 0 |
| RIFFLE | 15 | 461 | 8.0 | 0.24 | 4,431 | 0 | 1 | 8 | 46 | 32 | 13 | 0 |
| STEP/BOULDERS | 3 | 30 | 10.9 | 0.32 | 340 | 0 | 0 | 0 | 7 | 32 | 62 | 0 |
| Total: | 53 | 1,387 | 8.0 | 0.48 | 12,400 | 0 | Avg: 1 | 9 | 35 | 36 | 17 | 1 |

HABITAT SUMMARY

| Habitat Group | No. Units | Total Length (m) | Avg Width (m) | Avg Depth (m) | Wetted Area (m ²) | Wetted Area Percent | Large Boulders Number | Boulders #/100m ² |
|-------------------|--------------|------------------------|---------------------|---------------------|----------------------------------|------------------------|-----------------------------|---------------------------------|
| Dammed & BW Pools | 4 | 43 | 4.0 | 0.48 | 183 | 1.47 | 0 | 0.0 |
| Scour Pools | 18 | 426 | 9.7 | 0.93 | 4,629 | 37.33 | 0 | 0.0 |
| Glides | 0 | 0 | - | - | 0 | 0.00 | 0 | 0.0 |
| Riffles | 15 | 461 | 8.0 | 0.24 | 4,431 | 35.73 | 0 | 0.0 |
| Rapids | 4 | 124 | 15.3 | 0.30 | 1,920 | 15.48 | 0 | 0.0 |
| Cascades | 3 | 26 | 1.0 | 0.10 | 26 | 0.21 | 0 | 0.0 |
| Step/Falls | 3 | 30 | 10.9 | 0.32 | 340 | 2.74 | 0 | 0.0 |
| Dry | 6 | 278 | 3.0 | 0.09 | 873 | 7.04 | 0 | 0.0 |

POOL SUMMARY

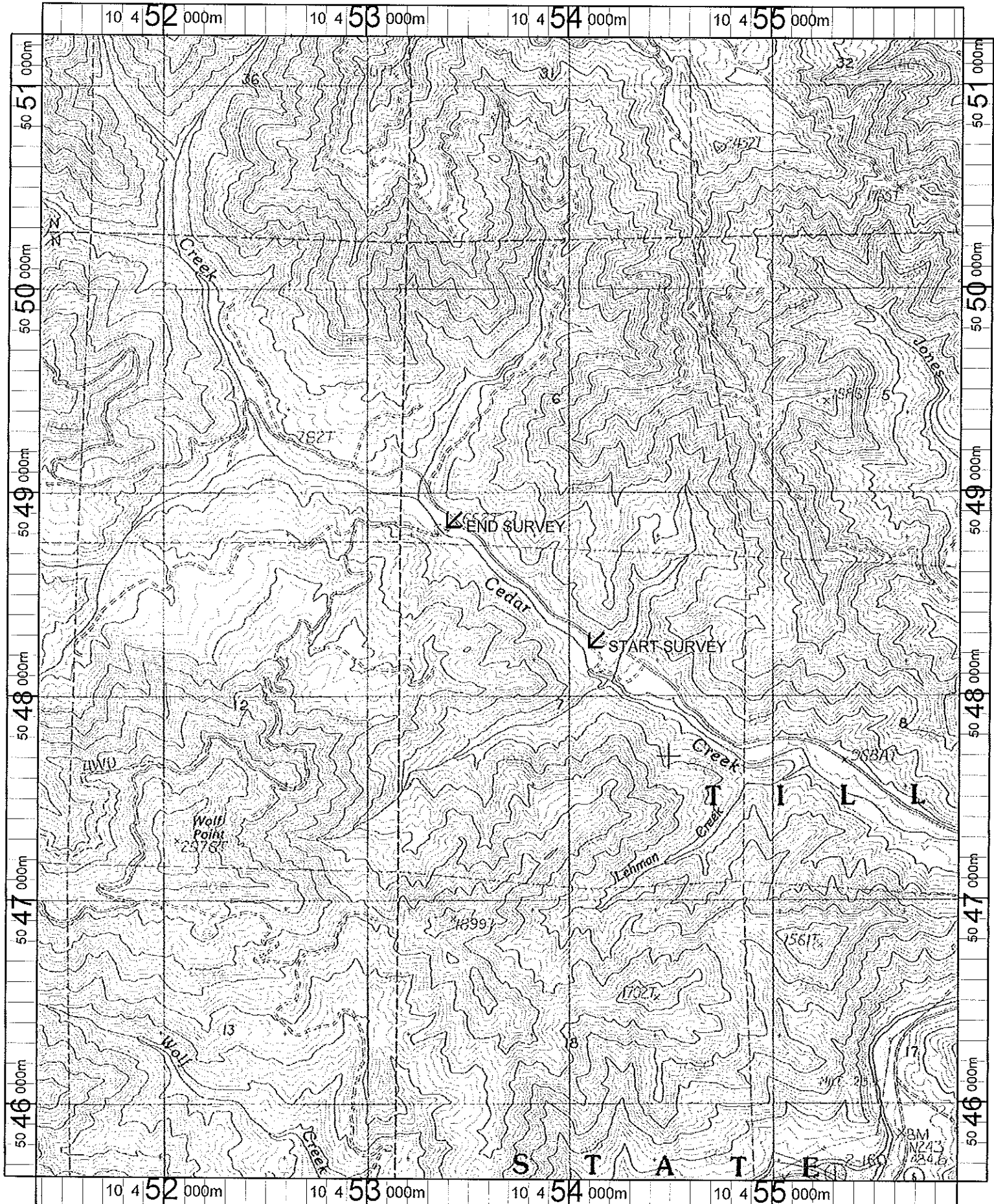
| | | |
|---------------------------------------|--------------|-------------|
| All Pools | <u>Total</u> | <u>#/Km</u> |
| | 22 | 15.9 |
| Pools ≥1m deep: | 9 | 6.5 |
| Complex pools (LWD pieces ≥3): | 8 | 5.8 |
| Pool Frequency (channel widths/pool): | 3.4 | |
| Residual pool depth (avg) | 0.73m | |

STREAM SUMMARY

CEDAR CREEK POST-TX

| Number Units | Total Length (m) | Avg Width (m) | Avg Depth (m) | Total Area (m ²) | Substrate Percent Wetted Area | | | | | Total Large Boulder | |
|-----------------|------------------------|---------------------|---------------------|------------------------------------|----------------------------------|------|------|------|------|---------------------------|------|
| | | | | | S/O | Sand | Grvl | Cbbl | Bldr | | Bdrk |
| 53 | 1,387 | 8.0 | 0.48 | 12,400 | 1 | 9 | 35 | 36 | 17 | 1 | 0 |

| Habitat Group | Wetted Area | |
|-----------------|-------------------|---------|
| | (m ²) | Percent |
| Scour Pool | 4,629 | 37.3 |
| Backwater Pools | 183 | 1.5 |
| Glide | 0 | 0.0 |
| Riffle | 4,431 | 35.7 |
| Rapid | 1,920 | 15.5 |
| Cascade | 26 | 0.2 |
| Step | 340 | 2.7 |
| Dry | 873 | 7.0 |



Name: JORDAN CREEK
 Date: 10/3/101
 Scale: 1 inch equals 2000 feet

Location: 10 453563 E 5048413 N
 Caption: CEDAR CREEK RESTORATION SITE - WILSON
 BASIN