

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

STREAM: Munson Creek Tributary A (NC-343)  
BASIN: Tillamook River  
SURVEY TYPE: Post-Tx  
DATE: February 21, 2008  
SURVEY CREW: Matt Weeber, Sharon Tippery  
REPORT PREPARED BY: Sharon Tippery  
BASIN AREA: 1.9 km<sup>2</sup>  
USGS MAPS: Beaver  
ECOREGION: Coast Range Coastal Uplands

**GENERAL DESCRIPTION:**

The Munson Creek Tributary A habitat survey extended 767 meters. The channel was constrained by multiple terraces in a broad valley floor. The average valley width index was 11 (range: 2-20). Land use for the reach was timber harvest and second growth timber (15-30cm dbh). The average unit gradient was 6.3 percent. Rapids (61%) and cascades (25%) dominated stream habitat. Cobble (39%) and gravel (33%) dominated stream substrate. Wood volume was 25.4m<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 including placed logs and two new open bottom, corrugated metal culverts.

No beaver activity was noted in the survey. A deer trail was observed during the survey.

**OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY**

**MUNSON CREEK TRIBUTARY A  
GCG: 1-NC SITE ID: 343**

**Survey Date: 2/21/2008**

**Report Date: 5/6/2008**

**T02S-R09W-S28SE**

**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         | 11.0 | VWI Range:                | 2 - 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     | 767               | 2,492            | 0                |
| Secondary   | 132               | 177              | 1                |

Channel Dimensions (m)

| <u>Wetted</u> | <u>Active</u> | <u>Floodprone</u> n = 5 | <u>First Terrace</u> n = 3 |
|---------------|---------------|-------------------------|----------------------------|
| Width: 3.0    | Width: 4.3    | 5.0 ( 3.6 - 6.4 )       | 5.9 ( 4.8 - 7 )            |
| Depth: 0.20   | Height: 0.3   | 0.5 ( 0.5 - 0.6 )       | 0.9 ( 0.8 - 1 )            |

W:D ratio: 16.1

Stream Flow Type: MF

Average Unit Gradient: 6.3%

Water temperature (°C): 6.0 - 6.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 4.0

Habitat Units/100m (primary channel length): 4.7

**Riparian, Bank, and Wood Summary**

|                      | <u>Primary</u> | <u>Secondary</u> |
|----------------------|----------------|------------------|
| Land Use:            | TH             | ST               |
| Riparian Vegetation: | D15            | S                |

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):  | 148          | 19.3                                |
| Volume (m <sup>3</sup> ):   | 195          | 25.4                                |
| Key pieces (>=12m x 0.60m): | 3            | 0.4                                 |

OREGON DEPARTMENT OF FISH AND WILDLIFE

MUNSON CREEK TRIBUTARY A

HABITAT INVENTORY

GCG: 1-NC SITE ID: 343

Survey Date: 2/21/2008

Report Date: 5/6/2008 T02S-R09W-S28SE REACH 1

HABITAT DETAIL

| Habitat Type       | Number<br>Units | Total<br>Length<br>(m) | Avg<br>Width<br>(m) | Avg<br>Depth<br>(m) | Total<br>Area<br>(m <sup>2</sup> ) | Large<br>Boulders<br>(#>0.5m) | Substrate<br>Percent Wetted Area |           |           |           |           |          |
|--------------------|-----------------|------------------------|---------------------|---------------------|------------------------------------|-------------------------------|----------------------------------|-----------|-----------|-----------|-----------|----------|
|                    |                 |                        |                     |                     |                                    |                               | S/O                              | Snd       | Grvl      | Cbl       | Bldr      | Bdrk     |
| CASCADE/BOULDERS   | 7               | 273                    | 2.7                 | 0.18                | 682                                | 0                             | 4                                | 6         | 22        | 44        | 24        | 0        |
| CULVERT CROSSING   | 2               | 34                     | 4.1                 | 0.15                | 138                                | 0                             | 0                                | 8         | 56        | 31        | 5         | 0        |
| POOL-DAMMED        | 2               | 13                     | 2.6                 | 0.43                | 33                                 | 0                             | 3                                | 13        | 64        | 20        | 0         | 0        |
| POOL-ISOLATED      | 1               | 2                      | 3.3                 | 0.60                | 5                                  | 0                             | 80                               | 15        | 5         | 0         | 0         | 0        |
| POOL-LATERAL SCOUR | 3               | 21                     | 3.6                 | 0.45                | 68                                 | 0                             | 7                                | 17        | 42        | 27        | 7         | 0        |
| PUDDLED UNIT       | 1               | 29                     | 1.5                 | 0.10                | 43                                 | 0                             | 23                               | 27        | 23        | 18        | 9         | 0        |
| RAPID/BOULDERS     | 14              | 504                    | 2.9                 | 0.17                | 1,633                              | 0                             | 1                                | 8         | 29        | 49        | 13        | 0        |
| RIFFLE             | 1               | 15                     | 2.2                 | 0.07                | 33                                 | 0                             | 45                               | 30        | 25        | 0         | 0         | 0        |
| STEP/COBBLE        | 2               | 5                      | 3.9                 | 0.08                | 19                                 | 0                             | 0                                | 3         | 13        | 75        | 10        | 0        |
| STEP/LOG           | 3               | 4                      | 3.1                 | 0.09                | 15                                 | 0                             | 0                                | 7         | 67        | 15        | 12        | 0        |
| <b>Total:</b>      | <b>36</b>       | <b>899</b>             | <b>3.0</b>          | <b>0.20</b>         | <b>2,668</b>                       | <b>0</b>                      | <b>Avg: 6</b>                    | <b>10</b> | <b>33</b> | <b>39</b> | <b>12</b> | <b>0</b> |

HABITAT SUMMARY

| Habitat Group     | Number<br>Units | Total<br>Length<br>(m) | Avg<br>Width<br>(m) | Avg<br>Depth<br>(m) | Wetted Area       |         | Large Boulders |                          |
|-------------------|-----------------|------------------------|---------------------|---------------------|-------------------|---------|----------------|--------------------------|
|                   |                 |                        |                     |                     | (m <sup>2</sup> ) | Percent | Number         | (# / 100m <sup>2</sup> ) |
| Dammed & BW Pools | 3               | 15                     | 2.8                 | 0.48                | 38                | 1.44%   | 0              | 0.0                      |
| Scour Pools       | 3               | 21                     | 3.6                 | 0.45                | 68                | 2.53%   | 0              | 0.0                      |
| Glides            | 0               | 0                      |                     |                     | 0                 | 0.00%   | 0              | 0.0                      |
| Riffles           | 1               | 15                     | 2.2                 | 0.07                | 33                | 1.24%   | 0              | 0.0                      |
| Rapids            | 14              | 504                    | 2.9                 | 0.17                | 1,633             | 61.20%  | 0              | 0.0                      |
| Cascades          | 7               | 273                    | 2.7                 | 0.18                | 682               | 25.57%  | 0              | 0.0                      |
| Step/Falls        | 5               | 9                      | 3.4                 | 0.08                | 34                | 1.26%   | 0              | 0.0                      |
| Dry               | 1               | 29                     | 1.5                 | 0.10                | 43                | 1.60%   | 0              | 0.0                      |
| Culverts          | 2               | 34                     | 4.1                 | 0.15                | 138               | 5.16%   | 0              | 0.0                      |

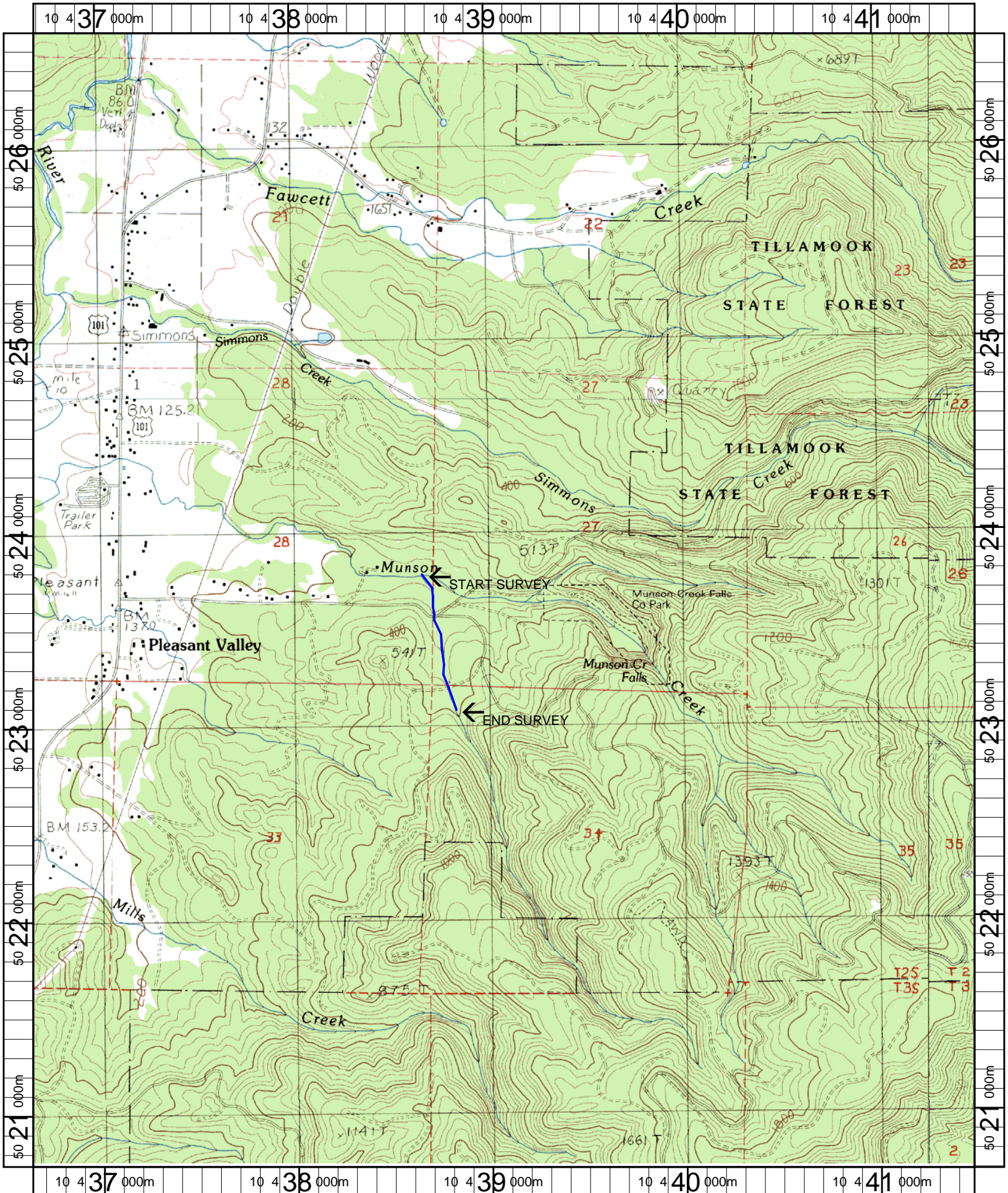
POOL SUMMARY

|                                       | Total of all Channel Lengths |               | Primary Channel Length |
|---------------------------------------|------------------------------|---------------|------------------------|
|                                       | <u>Total</u>                 | <u># / Km</u> | <u># / Km</u>          |
| All Pools:                            | 6                            | 6.7           | 7.8                    |
| Pools >=1m deep:                      | 0                            | 0.0           | 0.0                    |
| Complex pools (LWD pieces>=3):        | 2                            | 2.2           | 2.6                    |
| Pool frequency (channel widths/pool): | 35.2                         |               |                        |
| Residual pool depth (avg):            | 0.23                         |               |                        |

**COMMENT SUMMARY**

MONITORING AREA: 1-NC      SITE ID: 343      STREAM: MUNSON CREEK TRIBUTARY A

| UNIT# | TYPE | CHAN | DIST. (m) | COMMENTS  | NOTES   |
|-------|------|------|-----------|-----------|---|
| 1     | CB   | 00   | 35        | HS, WL    | LOGS, DEER TRAIL  |
| 4     | RB   | 00   | 93.7      | HS        | LOGS  |
| 5     | RB   | 00   | 105.2     | HS        | LOGS  |
| 8     | RB   | 00   | 121.1     | HS        | LOGS  |
| 11    | RB   | 00   | 176.8     | HS        | LOGS  |
| 12    | RB   | 00   | 228.8     | SS/SS, HS | LOGS, SS/SS STARTING TO BECOME 02 CHANNELS                      |
| 13    | LP   | 00   | 233.1     | CS/CS     | AT CULVERT OPENING  |
| 14    | CC   | 00   | 248.1     | CC, CS/CS | NEW CORRUGATED METAL OPEN BOTTOM, H=2.2M, W=4.0M, BOULDER CS/CS |
| 15    | RB   | 00   | 298.1     | /SS, HS   | LOGS  |
| 16    | RB   | 00   | 348.1     | HS, WL    | LOGS, WINDBLOWN ALDERS, WINTER WREN                             |
| 18    | RI   | 02   | 366.1     | /SS       |   |
| 21    | RB   | 01   | 478.4     | TJ/       |   |
| 22    | RB   | 11   | 478.4     |           | ACW=0.9M  |
| 24    | CB   | 01   | 527.4     | HS,DJ     | HABITAT LOGS & WINDBLOWN ALDERS & LOGGING SLASH                 |
| 26    | RB   | 00   | 577.4     | HS        | LOGS  |
| 27    | RB   | 01   | 631.4     | HS        | LOGS  |
| 29    | RB   | 01   | 661.9     |           | WINDBLOWN ALDERS  |
| 33    | SC   | 00   | 662.4     |           | MANMADE? RIGHT AT DOWNSTREAM END OF CULVERT                     |
| 34    | CC   | 00   | 680.9     | CC, CS/CS | NEW CORRUGATED METAL OPEN BOTTOM H=2.0M, W=4.2M, BOULDER CS/CS  |
| 35    | CB   | 00   | 730.9     |           | WINDBLOWN ALDERS  |



Name: BEAVER  
 Date: 1/9/2007  
 Scale: 1 inch equals 2000 feet

Location: 10 439082 E 5023645 N  
 Caption: MUNSON CREEK TRIBUTARY A RESTORATION SITE -  
 TILLAMOOK BASIN